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**IBM Electronic Service Agent for IBM  
eServer xSeries and Netfinity**

**Version 3.0**

**User's Guide**

**Total Pages: 57**

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**Note:**

Before using this information and the product it supports, read the information in Appendix A, “Notices and Trademarks,” on page 48.

FIRST EDITION (June 2003)

This edition applies to version 3.0 of IBM® Electronic Service Agent™ for IBM® eServer™ xSeries® and Netfinity® (product number 5639-L09) and to all subsequent releases and modifications until otherwise indicated in new editions.

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# Chapter 1. About This User's Guide

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## Introduction

This guide provides overview information, prerequisite information, installation instructions, and configuration instructions for the IBM® Electronic Service Agent™ for IBM eServer™ xSeries® and Netfinity®, Version 3.0, hereafter referred to as “Electronic Service Agent.”

## Who Should Read This Guide

This document is intended for use by the Information Technology or network administrators who are responsible for Windows™ systems. Readers should have extensive knowledge of their LAN environment and a general knowledge of operating systems.

## Conventions Used in This Manual

This guide uses several typeface conventions for special terms and actions, as follows:

### **Bold**

Commands and other controls, keywords, and other information you should use literally appear in **bold**.

### *Italics*

Variables that you must provide appear in *italics*.

### Monospace

Examples of code or text you should type appear in monospace.

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## Chapter 2. Understanding Electronic Service Agent

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### What is Electronic Service Agent?

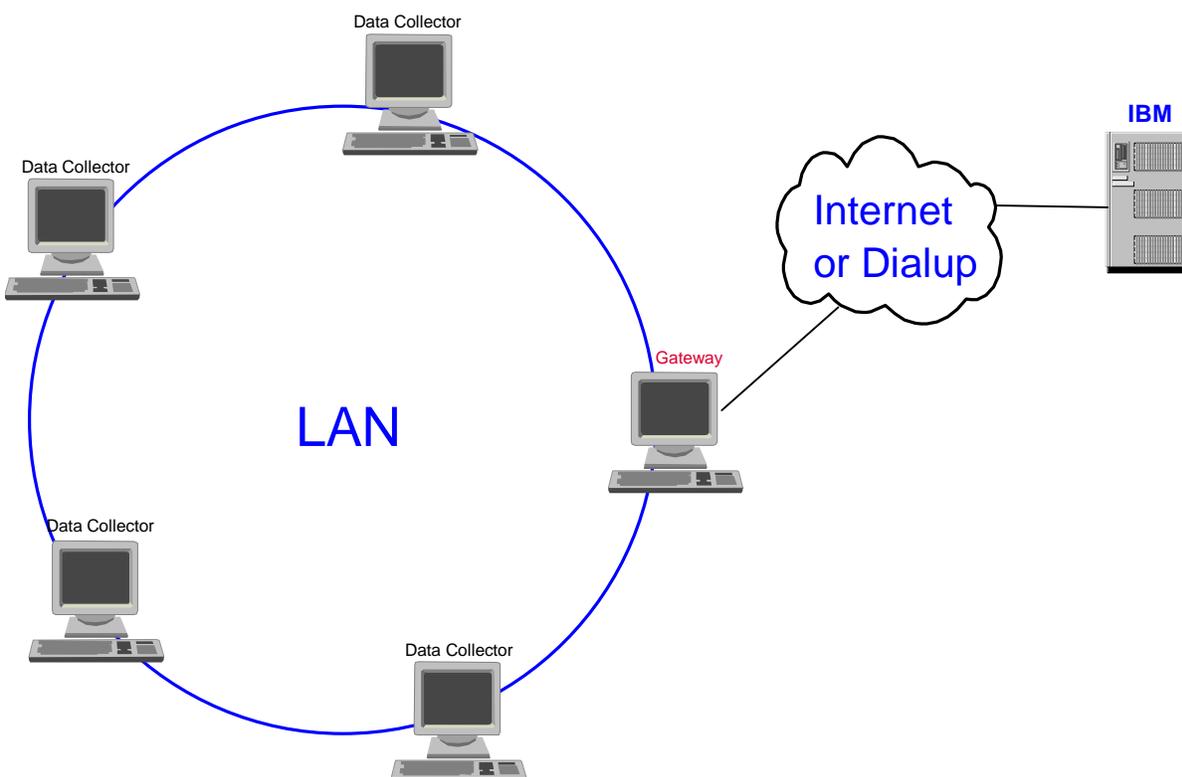
Electronic Service Agent is a secure, remote, information-gathering program designed to help you minimize the resources required to run and maintain your networked computers, increase your systems' availability, and aid IBM in servicing and maintaining your systems.

Electronic Service Agent monitors your system hardware for errors and automatically sends service information to a secure central IBM server. This information includes:

- Inventory data, such as hardware and software configuration error conditions
- System state information
- Service requests to IBM Support Center when a hardware error is detected

This information is used by IBM to reduce server downtime and to provide enhanced problem determination and resolution. When Electronic Service Agent automatically detects and transmits a hardware error to IBM, you will be contacted by the IBM xSeries Support Center.

### How Electronic Service Agent Works



Electronic Service Agent is installed on every system you want monitored. Each system being monitored is designated as a Data Collector, and one system within your network is designated as a Gateway, which is also considered a managed system. The Data Collector gathers information about your system and

forwards it to the Gateway. The Gateway machine formats all the information and sends the collected data to IBM, either by dial-up or via the Internet.

### What Electronic Service Agent Will Do For You

Electronic Service Agent will:

- Collect information about your hardware configuration and the software installed
- Monitor your hardware
- Issue a Service Request in the event of a failure
- Report the failing Field Replaceable Unit (FRU) , if available
- Prompt a callback from the IBM xSeries Support Center<sup>1</sup>
- Communicate periodically with IBM to report the operational status of each of the managed systems

### Security Controls

#### Communications

Electronic Service Agent accesses only machine inventory and error data. No unique customer data is ever accessed. Managed systems communicate with the Gateway by using Secure Socket Layer (SSL) to encrypt the data stream.

Electronic Service Agent only allows for outbound calls to be created from your location. No inbound calls are allowed. Electronic Service Agent communicates with IBM using an IBM Certified Secure Network structure. This is to protect both IBM and you from malicious attacks attempted by other users of the shared public infrastructure.

#### Administrative User

Access to programs providing control over Electronic Service Agent is restricted to users with Windows Administrative rights. Access to Electronic Service Agent control files and collected data is similarly restricted.

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<sup>1</sup> The machine must be under warranty or have an IBM Service Agreement.

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## Chapter 3. Before You Install

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Before starting to install, you should verify that all of the systems meet the requirements and that the prerequisites have been met.

### System Requirements

The following table shows the software and hardware requirements for installing and running Electronic Service Agent.

Operating System	<ul style="list-style-type: none"> <li>▪ Windows 2000 (Service Pack 3 required)</li> <li>▪ Windows 2000 Server (Service Pack 3 required)</li> <li>▪ Windows 2000 Advanced Server (Service Pack 3 required)</li> </ul>
Microprocessor	x86 (Pentium or higher)
Hard disk space	110 mb available The Gateway requires 100 mb, plus 10 mb per Data Collector
Modem or Internet access	Required for Gateway machine

### Network Requirements

#### Domain Name Server

The Data Collector systems and Gateway communicate with each other using a Local Area Network (LAN). Normally the host names of the systems will be obtained using a Domain Name Server (DNS). It is a requirement that all systems running Electronic Service Agent and communicating with each other be able to resolve the system hostnames. It is expected that in most cases all Electronic Service Agent machines will be on the same subnet, but this is not a strict requirement for operation. Electronic Service Agent is intended for a production environment where the network configuration is not undergoing major changes such as systems moving to new subnets.

This is easy to verify using the following procedure:

1. From the Windows screen, enter **Start->Run**. You see an entry box.
2. Enter **cmd.exe**. A command window opens.
3. Enter **ping machine**, where “*machine*” is the name of the machine to be contacted.

As an example, consider two machines named `quartz` and `slate`, each operating in the role of Data Collectors and a machine named `ruby` acting as a Gateway.

The two machines executing as Data Collectors would execute the command:

```
ping ruby
```

The Gateway machine, `ruby`, would execute the commands:

```
ping quartz
ping slate
```

In all cases, the ping command should show that the destination machine name is resolved. The name resolution is the indication of success, not necessarily the data transmission. This is because some systems ignore ping requests.

An example of successful name resolution in which data is transmitted:

```
C:\>ping www.ibm.com

Pinging www.ibm.com [129.42.16.99] with 32 bytes of data:

Reply from 129.42.16.99: bytes=32 time=130ms TTL=231
Reply from 129.42.16.99: bytes=32 time=121ms TTL=231
Reply from 129.42.16.99: bytes=32 time=150ms TTL=231
Reply from 129.42.16.99: bytes=32 time=130ms TTL=231

Ping statistics for 129.42.16.99:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 121ms, Maximum = 150ms, Average = 132ms
```

An example of successful name resolution in which no data is transmitted:

```
C:\>ping www.ibm.com

Pinging www.ibm.com [129.42.16.99] with 32 bytes of data:

Request timed out.
Request timed out.
Request timed out.
Request timed out.

Ping statistics for 129.42.16.99:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms
```

An example of unsuccessful name resolution:

```
C:\>ping www.ibm.com
Unknown host www.ibm.com.
```

Should name resolution not be enabled, it is necessary to tell machines how to resolve a host name. If any machine is unable to ping a machine by the host name, as shown in the example above, you will need to enter the IP address and host name in the 'hosts' file on the machine.

For example, if machine ruby was not able to ping machine slate, you would edit the hosts file on machine ruby and create an entry containing the IP address of machine ruby.

The hosts file will typically be found as:

```
C:\WINNT\system32\drivers\etc\hosts
```

If the IP address of ruby is 12.20.137.15, the hosts entry would appear as:

12.20.137.15

ruby

You can obtain the IP address of a machine by executing the `ipconfig` command in a DOS window.

## Firewalls

The normal operation of Electronic Service Agent is “Auto Discovery,” in which the Data Collector systems are able to locate a Gateway system. This is accomplished by the Data Collector executing a multicast operation to network address 239.1.2.3 and port 5557.

It would be unusual to have a hardware firewall between a Data Collector and a Gateway. If there is a hardware firewall, you will need to allow ports 5557 (UDP) and 19955 (TCP) to be open. The mechanics of this are dependent on the hardware in use.

If a system is running a software firewall, it must be configured to allow the Java program to communicate through the firewall. The exact procedure will depend on the firewall used. The typical method will be to allow the following program to communicate TCP/UDP protocol:

```
“C:\Program Files\IBM\ServiceAgent\_jvm\jre\bin\javaw.exe”
```

This is the default installation location. If an alternate installation location is chosen, the path will have to be modified accordingly.

The normal data communications port is 19955. If this port is blocked by a firewall, it will be necessary to enable communications on this port. If a different port is selected for communications, as discussed in “Configuring Data Collector Manually” on page 20, and a firewall is in use, it will be necessary to enable use of the selected port.

## Prerequisites

To prepare your environment for installing and configuring Electronic Service Agent, please complete the following steps:

1. Identify which machine will be used as the Gateway machine.
2. Ensure that the Gateway machine has access to a 56 Kbs modem capable of dialing the IBM Electronic Service site, or has access to the Internet. If a modem is used, be sure that the modem is connected and operational.
3. Ensure that the Gateway machine and all of the Data Collector machines meet the system requirements.
4. Ensure the person installing Electronic Service Agent has Administrator authority.
5. Ensure that the monitored machine is under warranty or has an IBM Service agreement.
6. Fill out the required information forms. To expedite configuration, forms are provided in “Appendix D. Forms” on page 55.

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## Chapter 4. Installation

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### Obtaining Electronic Service Agent Code

Electronic Service Agent is available by download from an IBM web site using your browser. To obtain the code:

1. Access the following web site:  
**[Http://www.pc.ibm.com/qtechinfo/MIGR-40870.html](http://www.pc.ibm.com/qtechinfo/MIGR-40870.html)**
2. Download a package consisting of:
  - The file 5639-n89-30.exe. Save this to a temporary directory.
  - This user's guide. Save to a directory where you can print it.
  - A Readme file. Save to a directory where you can print it or read it online.
  - An installation options file. This file can be used for the remote installation of one or more Data Collectors. Please see "Appendix B. Remote Installation" on page 50 for instructions on using this file.

### Installing Gateway

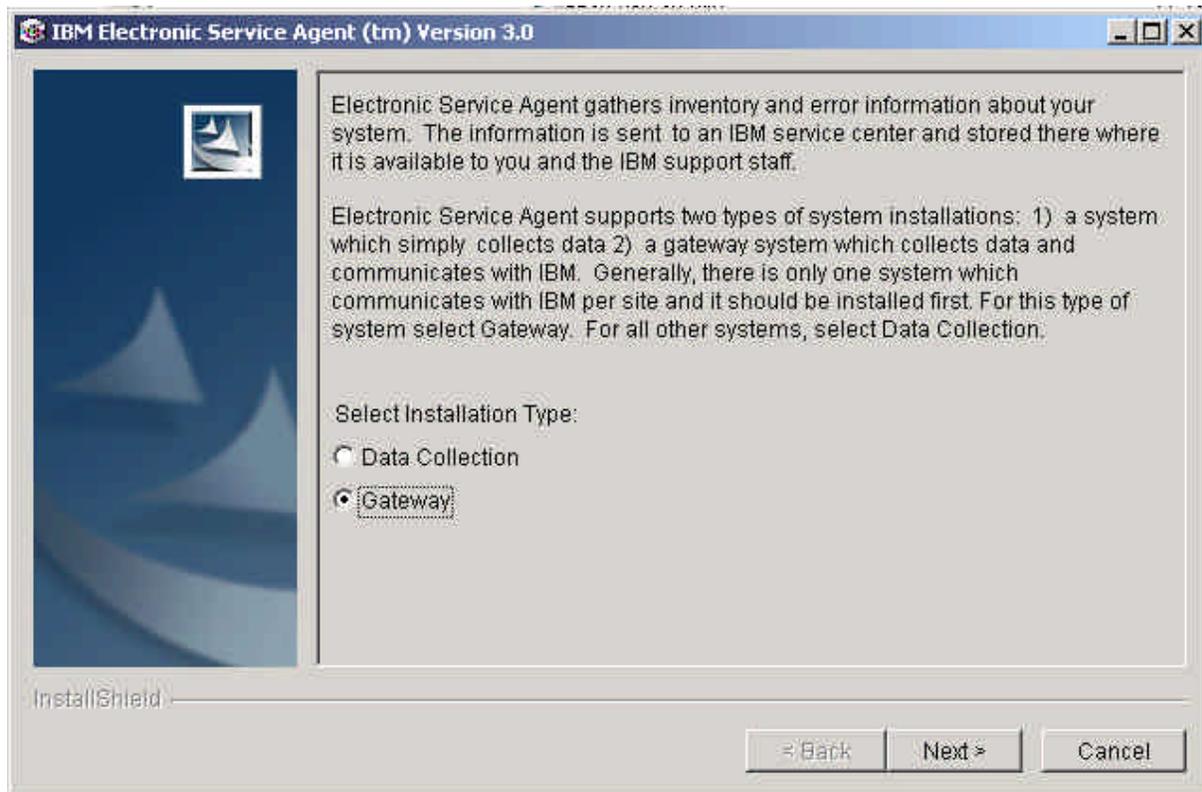
Notes:

1. **You must install and configure Gateway before installing data collectors.**
2. The installation involves restarting Windows. Do not begin installation if Windows can't be restarted at this time.
3. If you see a pop-up window containing an alert, click **OK** and continue the installation process. More information about this pop-up may be included in the Readme file.

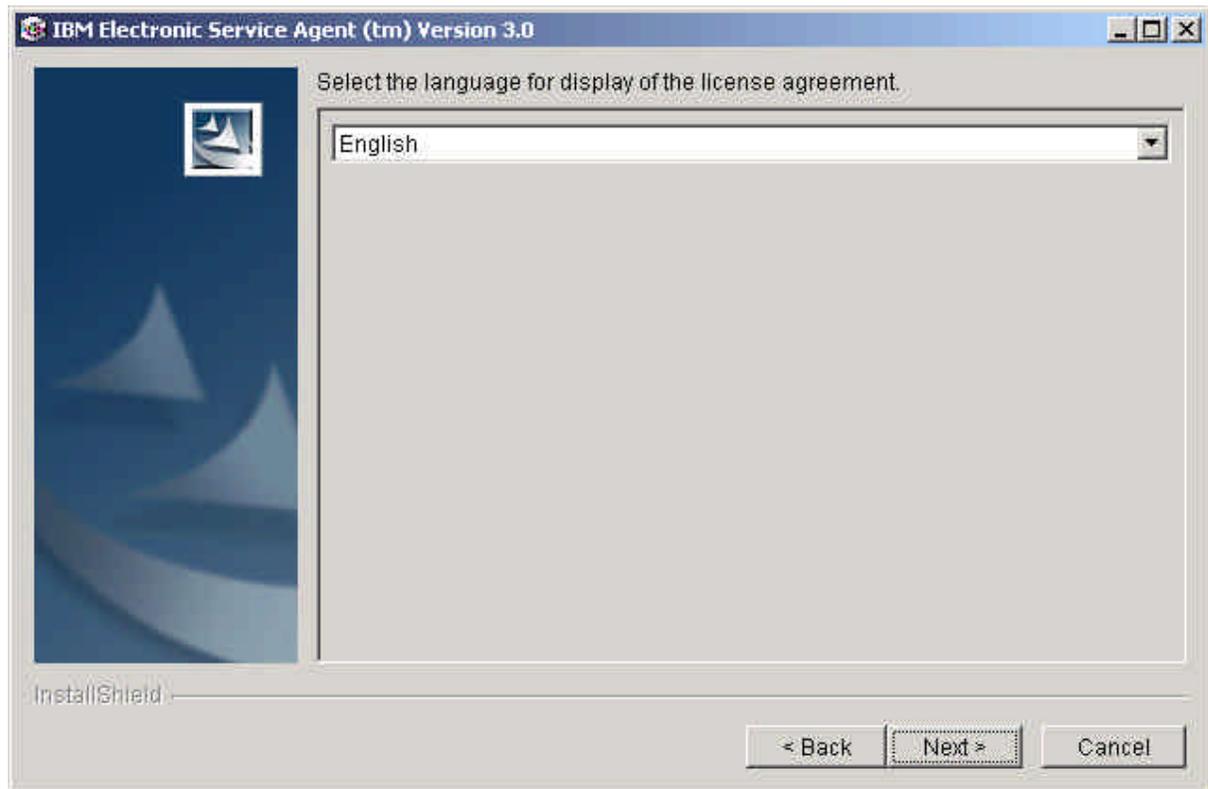
To install the Gateway code:

1. Access the 5639-n89-30.exe file in the temporary directory where you saved it.

2. Execute the file to invoke the install wizard. You see a screen asking you to select an installation type.



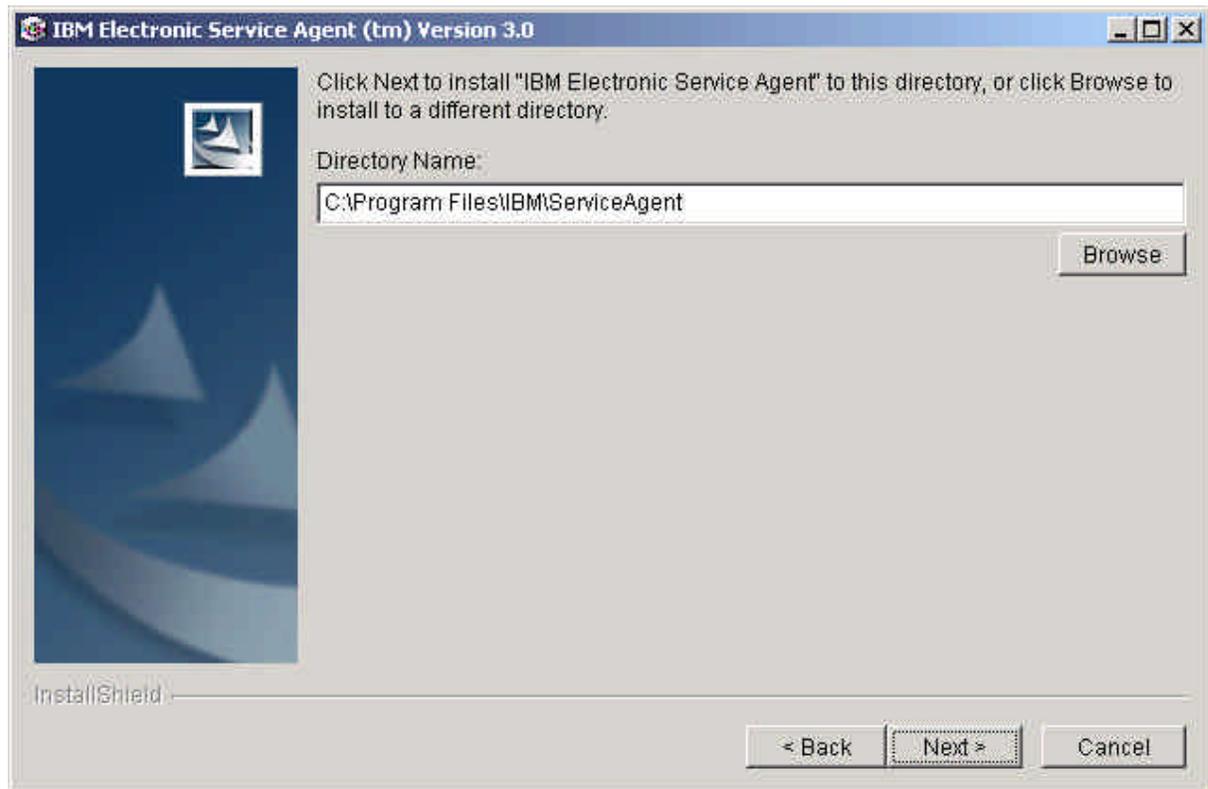
3. Select **Gateway** and click **Next**. You see a screen asking you to select a language for displaying the license Agreement.



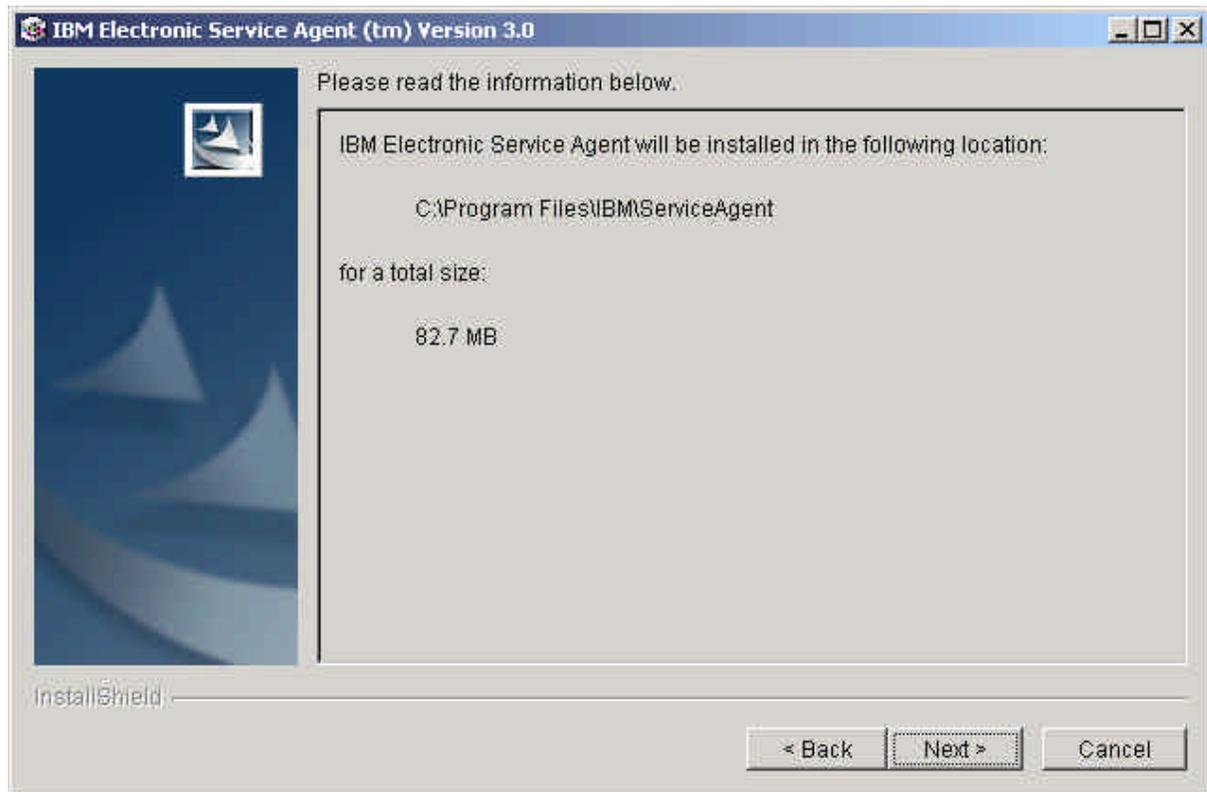
4. Select the language and click **Next**. You see a screen asking you to read the license agreement.



5. Select the option to accept the terms of the agreement and click **Next**. You see a screen asking where (in which directory) you want Electronic Service Agent installed.

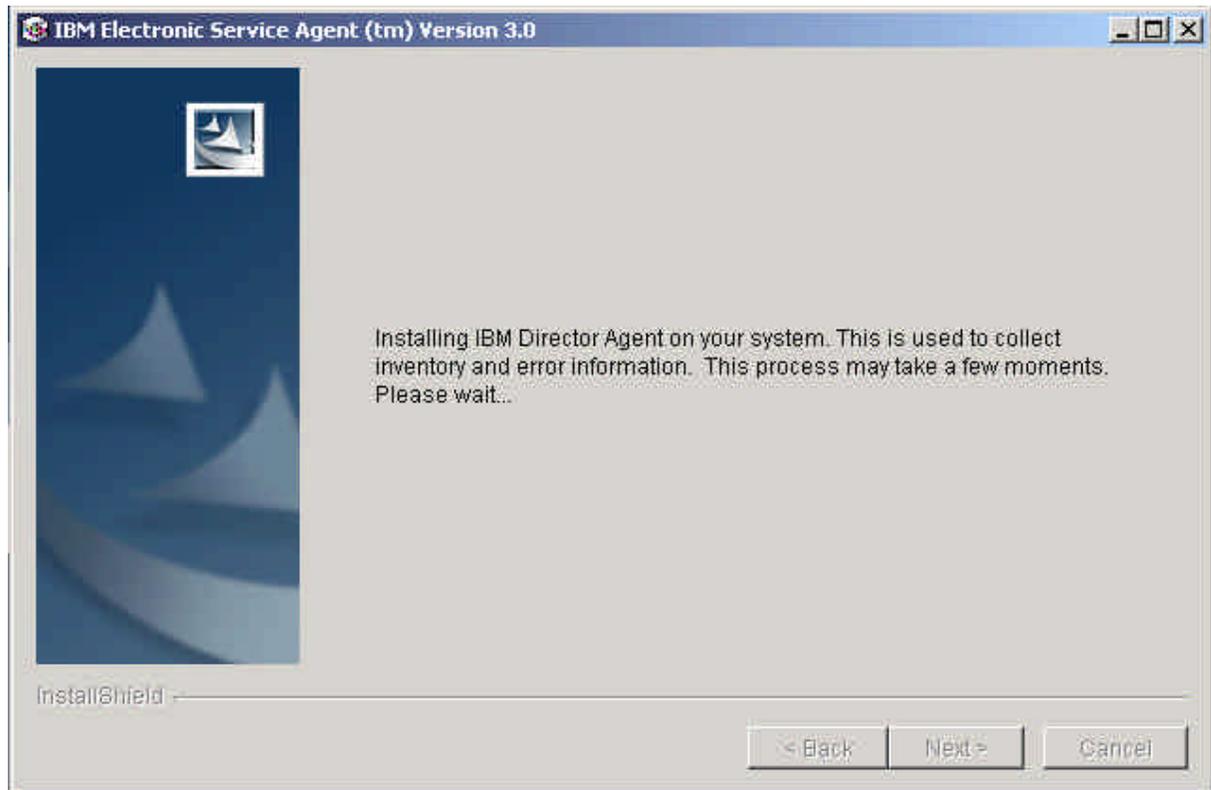


6. Take the default or select **browse** for a new location. Click **Next**. You see a confirmation screen.

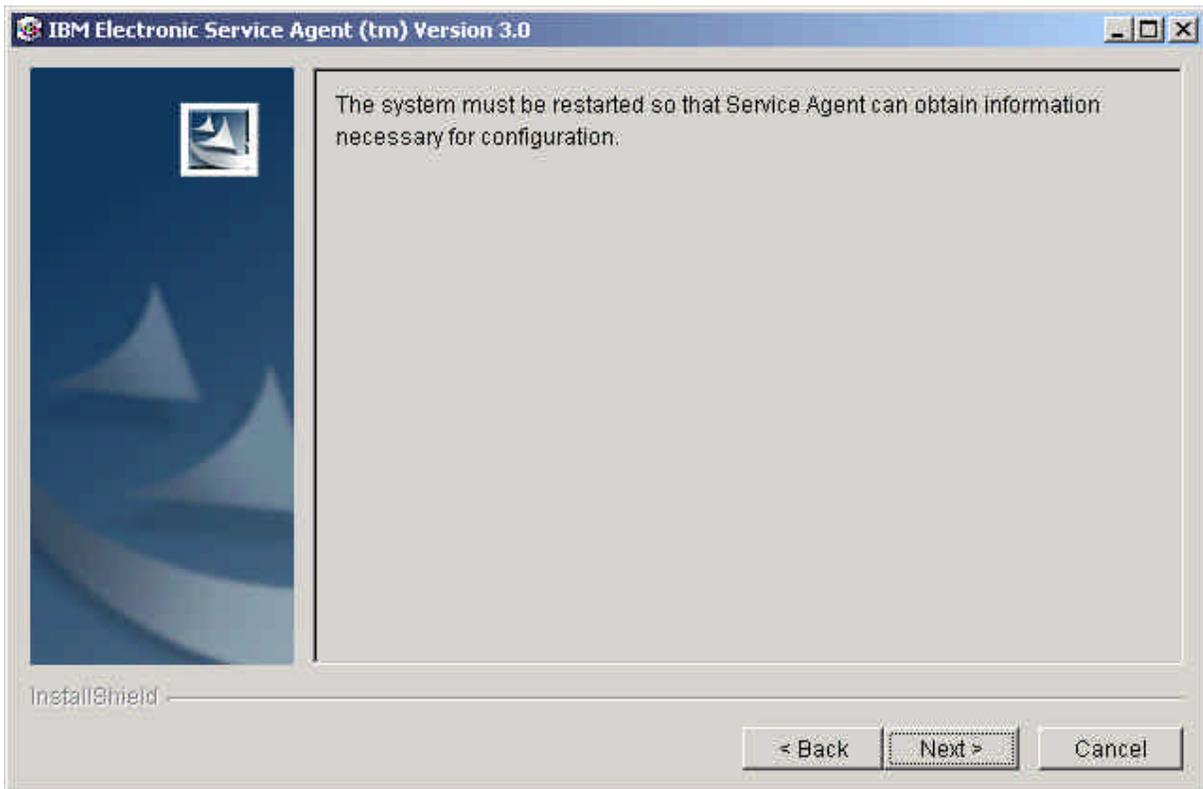


7. Verify your selections, and then click **Next**. A progress indicator will show how long the install process is taking.

8. You see a message telling you that the IBM Director Agent is being installed.



9. After IBM Director Agent has been installed, you see a message that the system must be restarted. Click **Next** to start the Process.



10. After the machine is restarted, you see the System Status screen, which lets you start configuring the Gateway. You must configure the Gateway before installing the Data Collectors. Please see “Chapter 5. Configuration.”

## Installing Data Collectors

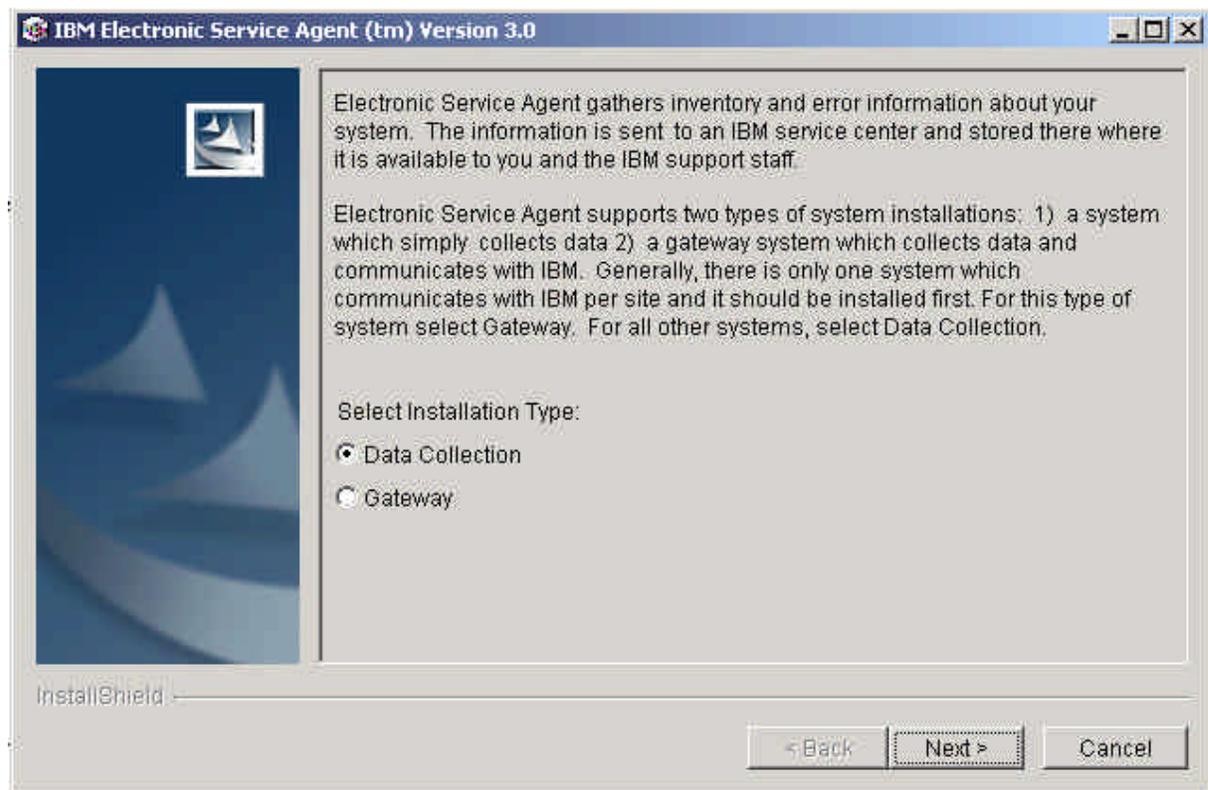
### Notes:

1. **You must install and configure Gateway before installing data collectors.**
2. The installation involves restarting Windows. Do not begin installation if Windows can't be restarted at this time.

To install the Data Collection code:

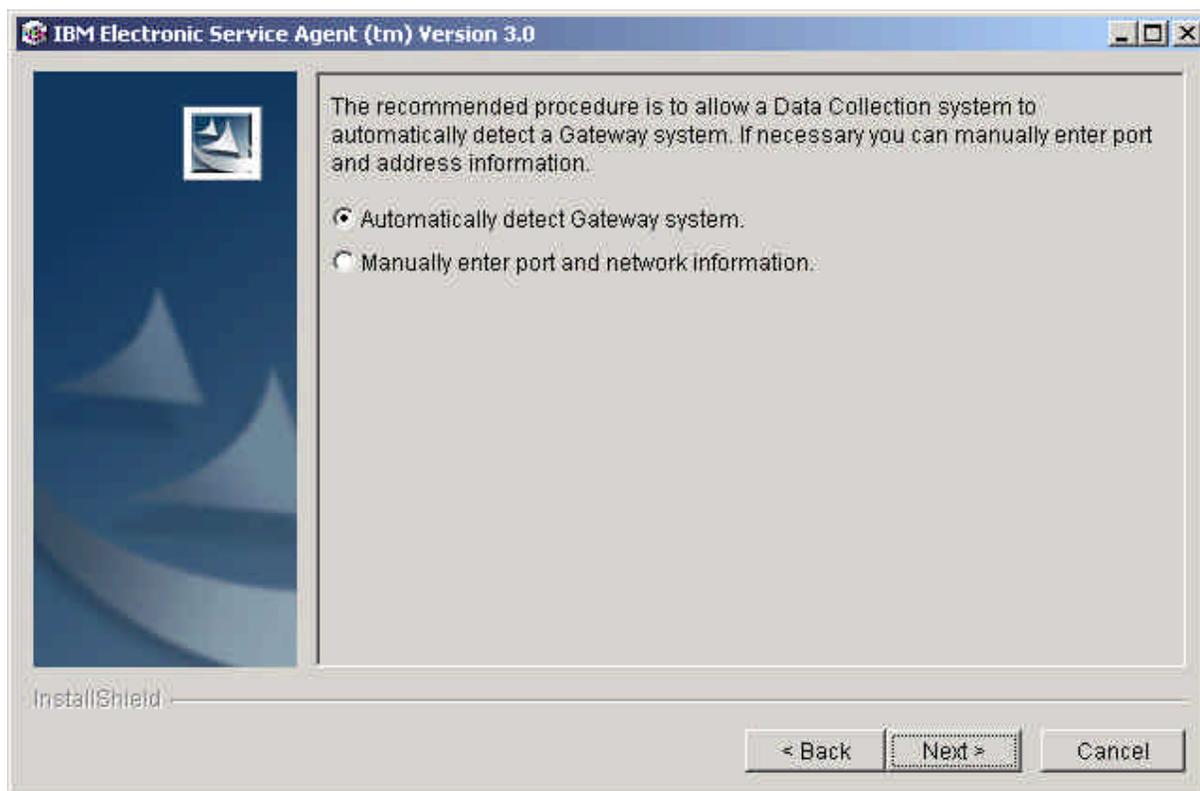
1. Access the 5639-n89-30.exe file in the temporary directory where you saved it.

- Execute the file to invoke the install wizard. You see a screen asking you to select an installation type.



- Select **Data Collection** and click **Next**. You see a screen asking you to select a language for displaying the license Agreement. (Please see the screens in the previous section for the remainder of this process. The screens for Gateway and Data Collection are identical.)
- Select the language and click **Next**. You see a screen asking you to read the license agreement.
- Select the option to accept the terms of the agreement and click **Next**. You see a screen asking where (in which directory) you want Electronic Service Agent installed.
- Take the default or select **browse** for a new location. Click **Next**. You see a confirmation screen.
- Verify your selections, and then click **Next**. A progress indicator will show how long the install process is taking. You see a message telling you that the IBM Director Agent is being installed.
- After IBM Director Agent has been installed, you see a message that the system must be restarted.

9. Click **Next** to restart the machine. When Windows is restarted, you see a screen containing configuration choices.



10. Do one of these:
  - Select “Automatically detect Gateway System” to have the Data Collector configure itself. This option is not available if you install a Data Collector on a separate subnet. See the next section of this document for directions for dealing with this situation.
  - Select “Manually enter port and network information” to configure the data collector yourself.

## Configuring Data Collector Manually

If you install a Data Collector system on a separate subnet from the location of your Gateway, you cannot use the standard auto configuration. This is because the multicast used for auto discovery typically will not be passed across your router. In this situation:

1. On the screen shown above, select **Manually enter port and network information**.

2. You see a data entry screen.

3. Enter data as follows:
- In the first field, enter one of these:
    - A fully qualified hostname, for example, “`abccgate.someplace.com`” rather than just “`abccgate.`”
    - An IP address such as “`12.120.37.15`”
 In either case, make sure that your Data Collection machine can resolve the name given. You can check this by using the “ping” command on your Data Collector.
  - In the second field, if you have other software that is using the port value 19955, and if you need to change the value only on a Data Collection system, enter a new port.
  - In the third field, if you need to alter the port used by both Data Collection and Gateway systems, enter the new port for the Gateway system. In many cases, it will be the same as the port for the Data Collection system. Click **Next**.

### Installing Electronic Service Agent if IBM Director is Already Installed

If IBM Director 4.1 is already installed, you must install Electronic Service Agent Version 3.0 on the Director Server or the Director console. Electronic Service Agent Version 3.0 cannot be installed on a Director managed server.

If IBM Director 3.1.1 is already installed, you must either upgrade to IBM Director 4.1, or install Electronic Service Agent Version 2.1.

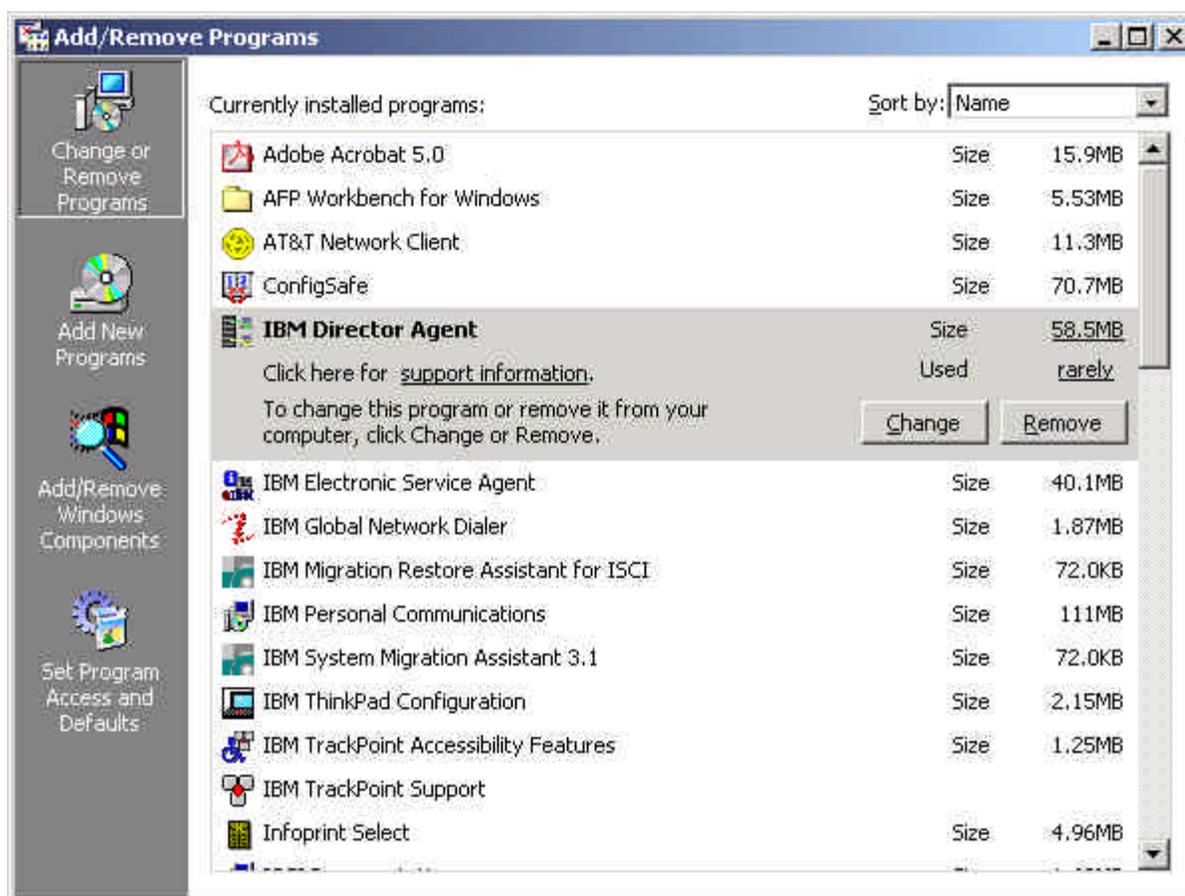
Please refer to *IBM Electronic Service Agent for IBM eServer xSeries and Netfinity Version 3.0 - Director Extension User's Guide* for instructions.

## Uninstalling Electronic Service Agent

Before uninstalling Electronic Service Agent, check to be sure that your machine is not a Gateway being used by one or more Data Collectors. Uninstalling the program would disable Electronic Service Agent on those machines.

To uninstall Electronic Service Agent, use the Windows Add/Remove programs function:

1. Select **Start -> Settings -> Control Panel -> Add/Remove Programs**. You see the Add/Remove Programs screen.



2. Highlight **IBM Director** and click **Remove**. You must remove this program first.
3. Highlight **IBM Electronic Service Agent** and click **Remove**.

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## Chapter 5. Configuration

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The Electronic Service Agent Manager program collects information about your company and your systems.

The Electronic Service Agent Manager must be executed for Gateways. It automatically starts right after installation.

Configuration is usually not required for Data Collectors. The Data Collectors employ a method of Auto-Discovery to download configuration information from the Gateway to the Data Collectors. If you do have to make a change in configuration, you may override the default information by running the Electronic Service Agent Manager on the Data Collector. This might be done if the Data Collector has a different location or contact name than the Gateway server.

To invoke the Electronic Service Agent Manager, for the purpose of configuring a Gateway or a Data Collector, execute the following program:

```
c:\Program Files\ibm\ServiceAgent\esa\bin\esamanager.exe
```

(where `c:\Program Files\ibm\ServiceAgent` is the directory where you have stored your files).

There are six areas, each represented by a tab, that can be configured.

**System Status:** this tab reports the current status of Electronic Service Agent and allows you to start and stop it.

**Company:** contains information about your company.

**Contact:** contains information about whoever is responsible for this system.

**Location:** describes where this system is located

**Communications:** contains information about the network setup.

**Advanced:** lets you define who can view the data.

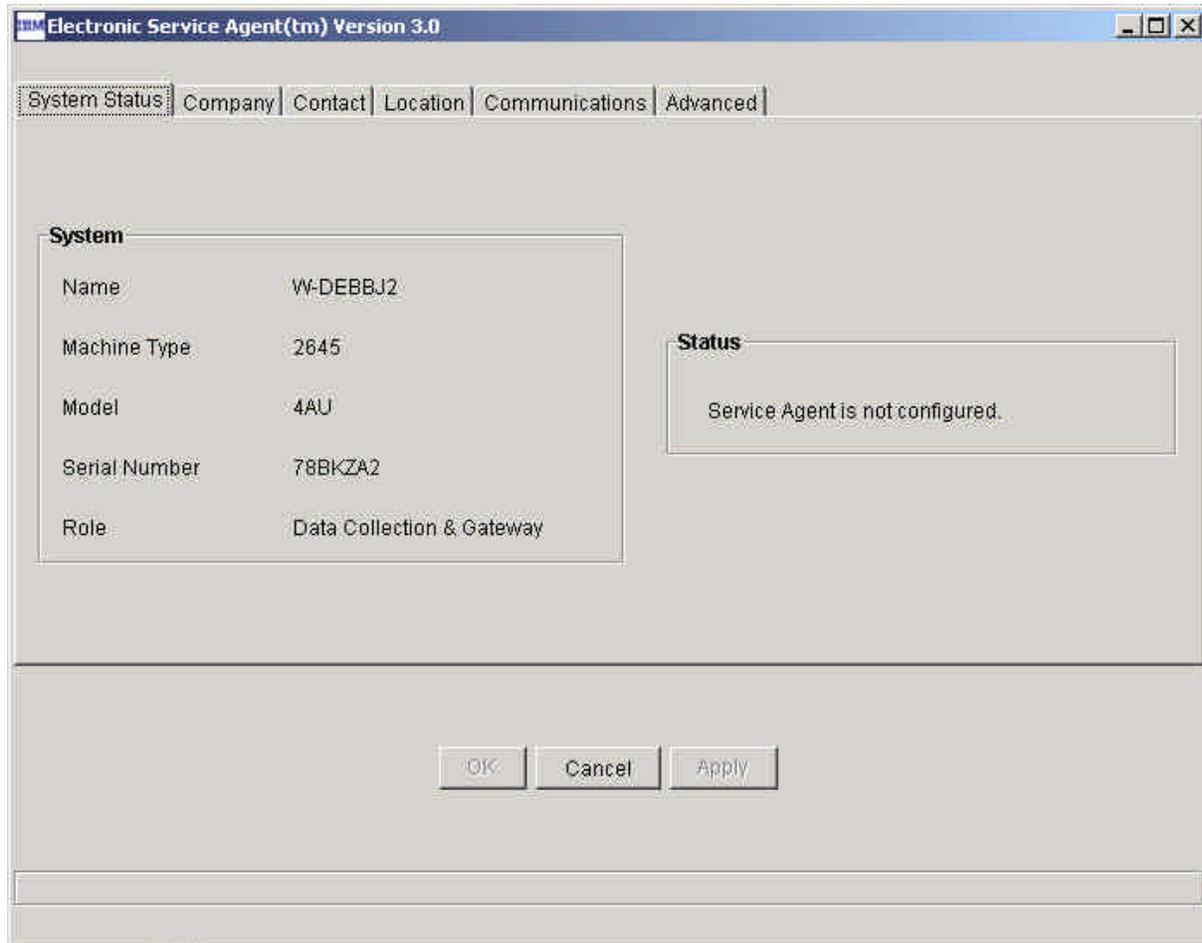
For each tab:

1. Fill in data as requested. Mandatory fields are signified by an asterisk.
2. At the bottom of each page, you see three tabs: OK, Cancel, and Apply.
3. Do one of these:
  - Click **Apply** to save your changes and remain on the page
  - Click **Cancel** to cancel changes and exit the application
  - Click **OK** to save changes and exit the application
4. Click another tab to configure another page. You can select tabs in any order you wish.
5. Fill in data and click **Apply**.
6. When you have completed configuring all required fields, click **OK** to save all your changes and exit the Configuration process.

## Configuring a Gateway

### System Status

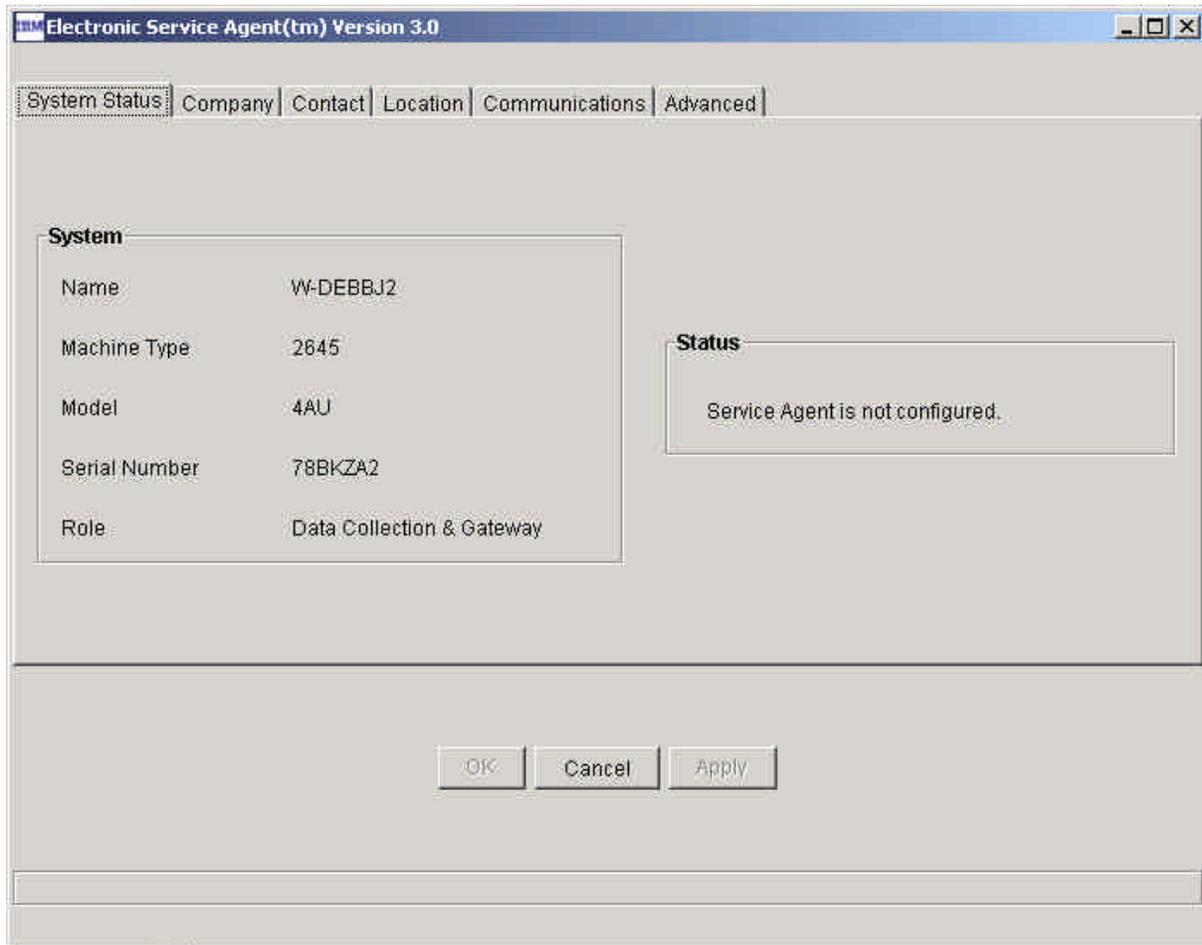
When you install Electronic Service Agent on a Gateway, you see the System Status screen for Data Collection & Gateway.



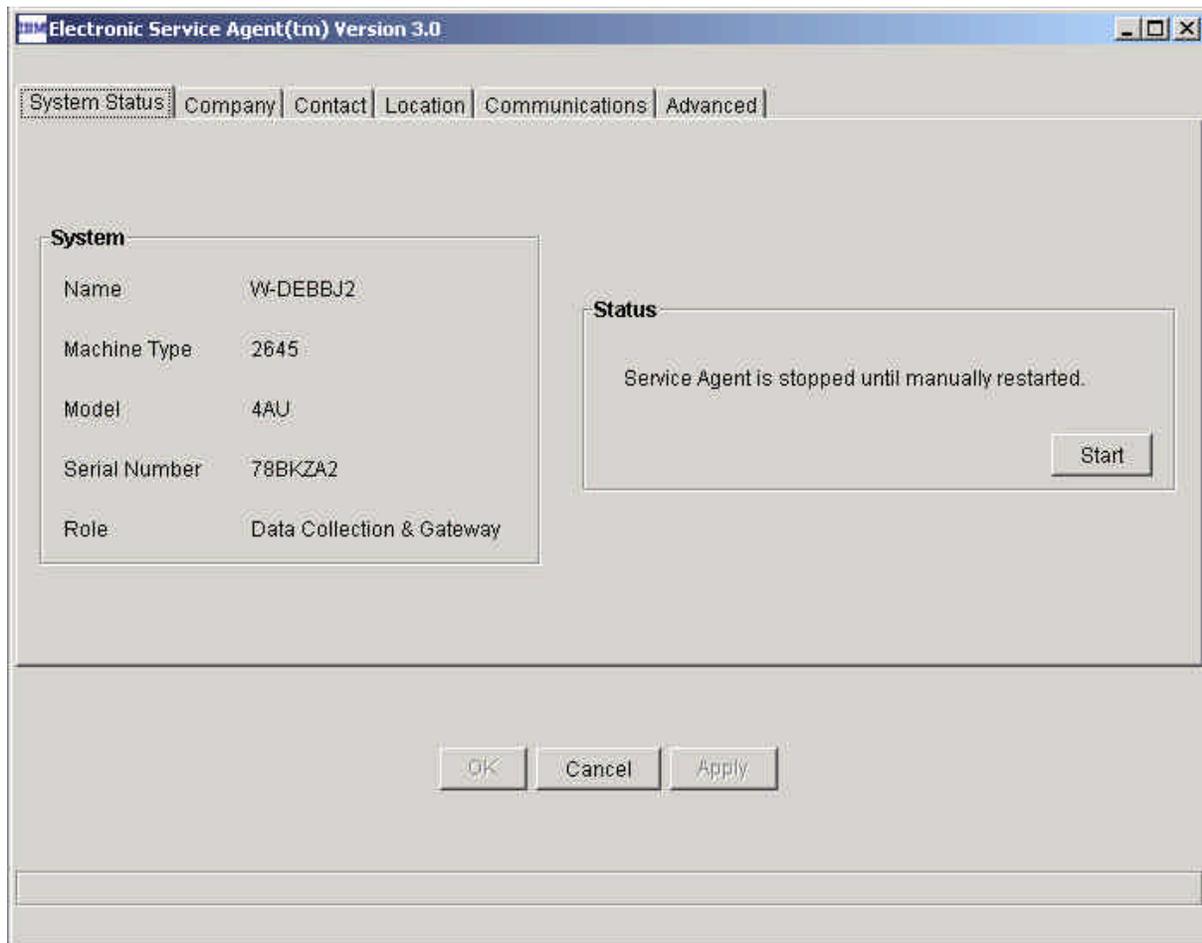
This screen reports on the current status of Electronic Service Agent and provides a method to start or stop the program. The Name, Machine Type, Model, and Serial are shown as they will be sent to IBM.

The Status field displays one of the following messages:

Service Agent is not configured. This is the initial status before you have completed configuration.

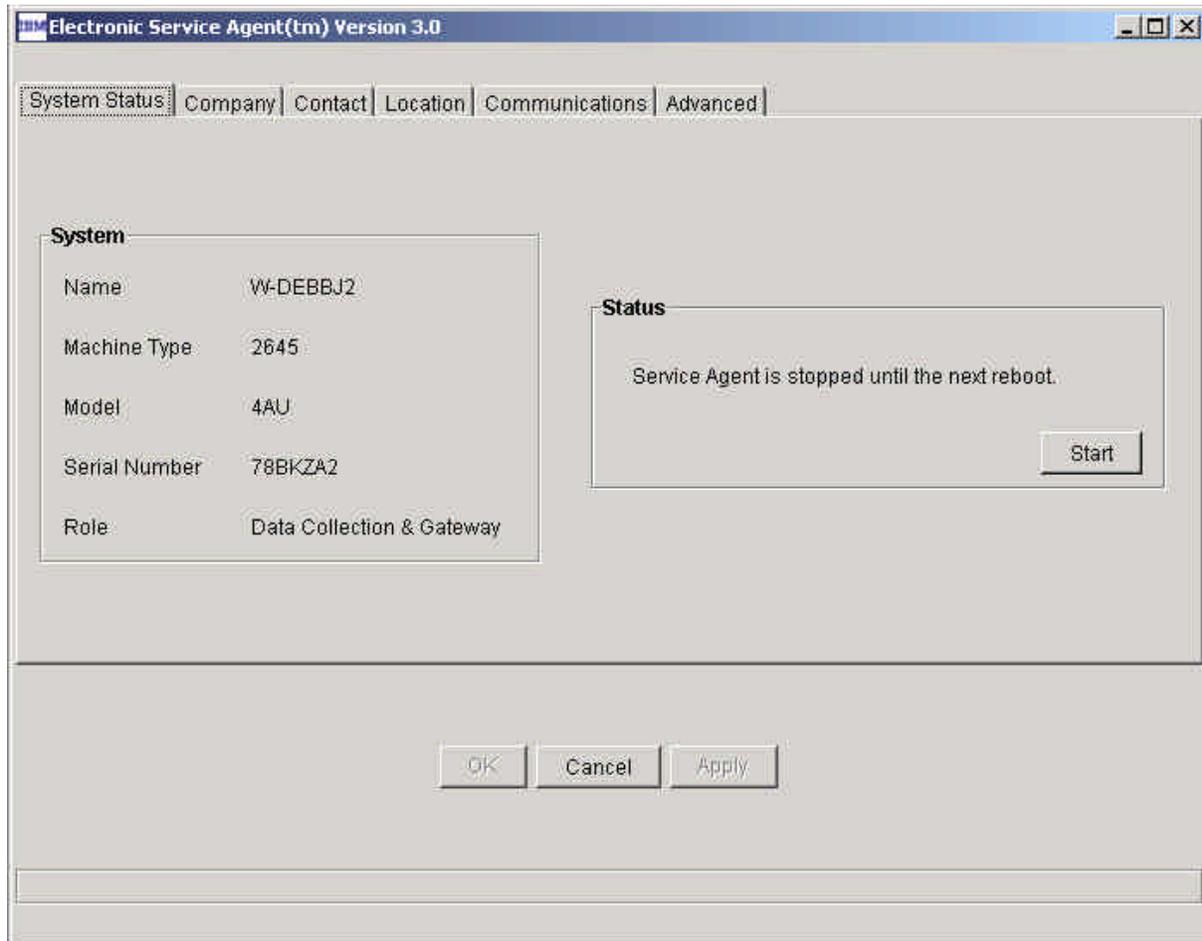


Service Agent is stopped until manually restarted.



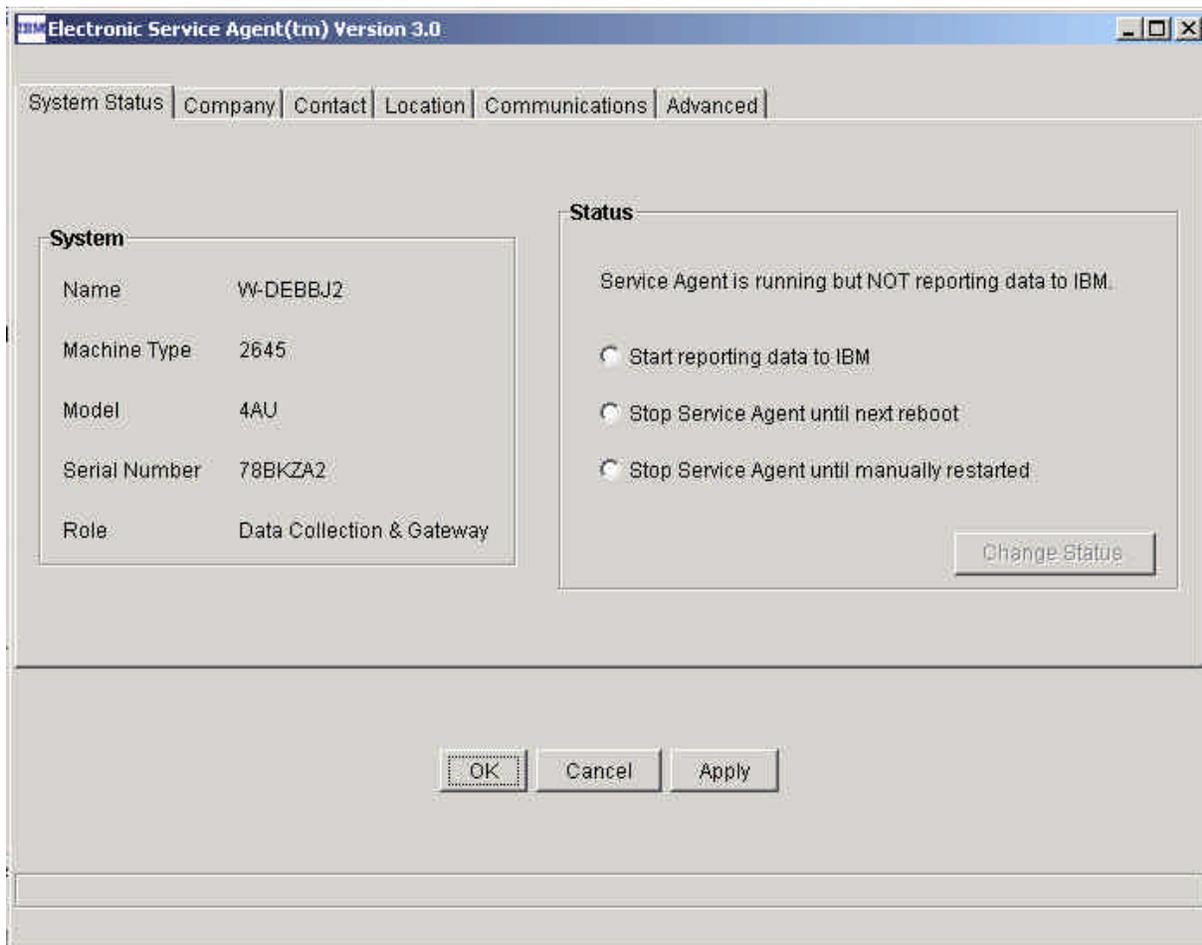
You can elect to start Electronic Service Agent by clicking the **Start** button, or you can wait until the next reboot.

Service Agent is stopped until the next reboot.



You can click **Start** or wait until the next reboot.

Service Agent is running but not reporting data to IBM.



You can select one of the following options:

- Start reporting data to IBM.
- Stop Electronic Service Agent until next reboot.
- Stop Electronic Service Agent until manually restarted.

If you make changes, click **Apply** to save them.

The following sections describe the pages you have the option of changing for the purpose of configuring the Gateway.

## Company

This screen requests information about your company.

IBM Electronic Service Agent(tm) Version 3.0

System Status | **Company** | Contact | Location | Communications | Advanced

Company\* IBM Corporation

Country or Region\* UNITED STATES

Telephone\* 5035784826

Extension 123

email info@ibm.com

If your company has an IBM 'Enterprise Number' or 'ECI ID' it helps IBM ensure that you receive any special services that your company has arranged with IBM. Please see the User's Guide for more information.

Enterprise or ECI ID 123

OK Cancel Apply

Fill in data as follows and click **Apply**:

Company: free-form text field

Country or Region: select from pull-down menu

Telephone: telephone number (10 digits in the U.S., beginning with area code) , no parentheses, hyphens, or spaces

Extension: free-form field

email: your company's Internet address, such as abc@abc.com.

Enterprise or ECI ID: enter one of these:

- Your IBM-assigned Enterprise number. An Enterprise is a grouping of customer numbers.
- Your Electronic Customer Interface (ECI) ID. These numbers are used to identify customers and their associated service agreement terms. Your purchasing team may be able to provide an ECI ID.

Note: An ECI ID is also known as **ESC+ ID** or **ECCOID**.

## Contact

This screen contains information about the person who supports this machine. This is the person IBM would be contacting in the event of a problem.

The screenshot shows a configuration window titled "IBM Electronic Service Agent(tm) Version 3.0". The window has a tabbed interface with the following tabs: "System Status", "Company", "Contact", "Location", "Communications", and "Advanced". The "Contact" tab is currently selected. The form contains the following fields:

Contact name*	John Smith
Country or Region*	UNITED STATES
Telephone*	5035784826
Extension	123
email*	john@ibm.com

At the bottom of the window, there are three buttons: "OK", "Cancel", and "Apply".

Fill in data as follows, and click **Apply**:

Contact name: free-form text field

Country or Region: select from pull-down menu

Telephone: telephone number (10 digits in the U.S., beginning with area code) , no parentheses, hyphens, or spaces

Extension: free-form field

email: your Internet address, such as janedoe@abc.com

## Location

This screen requests information about the location of the machine. This is NOT the mailing address: it is the physical location used by IBM to dispatch a field service representative.

IBM Electronic Service Agent(tm) Version 3.0

System Status | Company | Contact | Location | Communications | Advanced

Type in details of the location of your managed systems. This information is used by the IBM service representative to find the system if a Service Request is sent to IBM.

Building, Floor, Office\*

Country or Region\*

Address\*

City\*

State / Province\*

Post / Zip Code\*

OK Cancel Apply

Fill in data as follows and click **Apply**:

Building, Floor, Office: free-form text field

Country or Region: select from pull-down menu

Address: street address, free-form text

City: free-form text

State/Province: select from pull-down menu if one exists for your country/region

Post /Zip Code: free-form text

## Communications

The Gateway can communicate with IBM in one of two ways:

Via a dial-up modem.

Via the Internet.

The Communications screen asks you to select a connection method: Dial-Up or Internet.

The “Connection to this system” port number is the port the Data Collectors will use to send data to this Gateway. You can accept the default or override it.

## Communications/Dial-up

1. Select “Dial-up.” You see a screen asking for dial-up connection details.

The screenshot shows the 'Electronic Service Agent (tm) Version 3.0' window with the 'Communications' tab selected. The 'Connection to IBM' section has 'Dial-Up' selected. The 'Connection to this system' section has 'Port Number\*' set to '19955'. The 'Dial-Up Connection Details' section includes fields for 'Modem\*', 'Country\*' (set to 'UNITED STATES'), 'Region\*', 'City\*', and 'Number to dial\*'. A 'Test Connection' button is visible at the bottom right, along with 'OK', 'Cancel', and 'Apply' buttons at the bottom center.

2. Fill in these fields:

- Modem: if there is more than one modem on your system, you can select which modem to use.
- Country: select from pull-down menu
- Region: select from pull-down menu
- City: select from list that includes phone numbers followed by city names. Choose the combination that has the least calling charge associated with it.
- Number to dial: this is a free-form field that lets you insert a “9” or other number if necessary to access a dial tone.

3. Click **Test Connection** to test your changes.

- Testing the dialer communication may take a moment. A progress indicator will indicate approximately how long.
- This action tests the settings you entered: it detects the modem, verifies the phone line is connected and active, and verifies the connection to IBM.

- If you are changing settings that are working and the test fails, click **Cancel**. The existing setting remain unchanged. (Be sure that you have clicked **Apply** to save changes to other screens. If you haven't, your changes will be lost.)

### Communications/Internet

1. Select "Internet." You see a screen asking for Internet connection details.

The screenshot shows the 'Electronic Service Agent(tm) Version 3.0' window with the 'Communications' tab selected. The window has a menu bar with 'System Status', 'Company', 'Contact', 'Location', 'Communications', and 'Advanced'. The main area is divided into three sections:

- Connection to IBM:** Contains two radio buttons: 'Dial-Up' (unchecked) and 'Internet' (checked).
- Connection to this system:** Contains a 'Port Number\*' field with the value '19955' entered.
- Internet Connection Details:** Contains a 'Use proxy' checkbox (unchecked), a 'Proxy Address\*' field, and a 'Port Number\*' field.

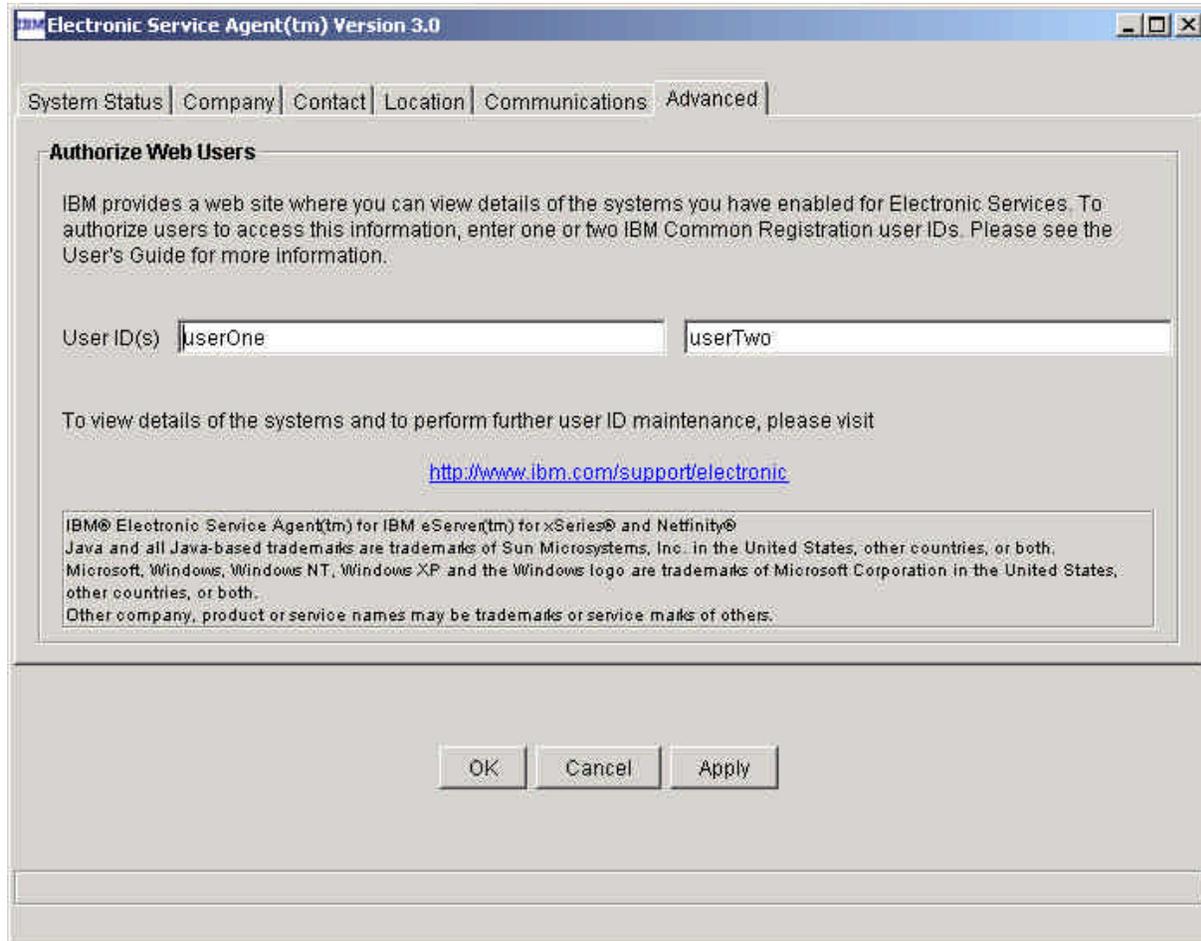
At the bottom right of the main area is a 'Test Connection' button. At the bottom center are three buttons: 'OK', 'Cancel', and 'Apply'.

2. Fill in fields
  - For a direct connection, leave the "Use proxy" box unchecked.
  - For a proxy connection, check the "Use proxy" box. You must then:
    - Fill in the proxy address. This can be either the dotted decimal or fully qualified domain name format.
    - Fill in a corresponding port.
3. Click **Test Connection** to test your changes. This will resolve the proxy address, contact the proxy server, resolve the IBM address, and establish a secure connection to IBM.
4. If the test fails, click **Cancel**. (Be sure that you have clicked **Apply** to save changes to other screens. If you haven't, your changes will be lost.)

## Advanced

IBM provides a web site where you can view the data for the systems you have enabled. This web site contains all the inventory data for the machines serviced by Electronic Service Agent.

The **Advanced** panel allows you to authorize up to two users to view this data.



For example, you might want to authorize a customer's contact and the contact's manager. These rules apply:

The users you authorize must have an IBM Common Registration ID. To obtain this registration, have the users sign on to IBM Registration at <http://www.ibm.com/registration/selfreg>.

You may add more than two users by visiting <http://www.ibm.com/support/electronic>. This web site provides more details about the Advanced function.

## Configuration End

When all of the panels are complete, click **OK**.

## Configuring a Data Collector

The Data Collector will configure itself by means of “Auto Discovery” at installation time, so it will probably not be necessary for you to do any further configuration. However, if you need to make changes, you can change any of the configuration items by running the Electronic Service Agent Manager on the Data Collector. This might be done if the Data Collector has a different location or contact name than the Gateway server.

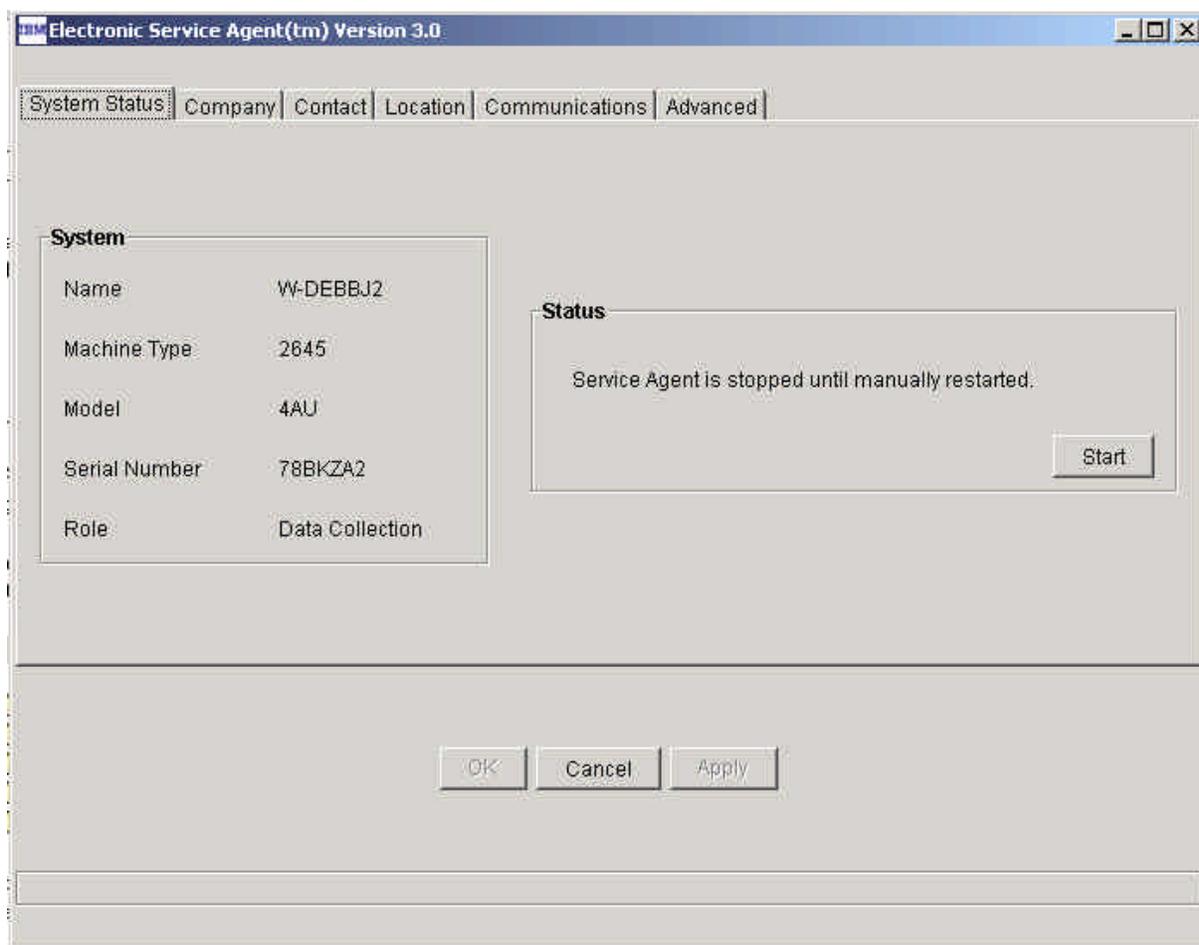
To invoke the Electronic Service Agent Manager, for the purpose of configuring a Data Collector, execute the following program:

```
c:\Program Files\ibm\ServiceAgent\esa\bin\esamanager.exe
```

(where c:\Program Files\ibm\ServiceAgent is the directory where you have stored your files).

## System Status

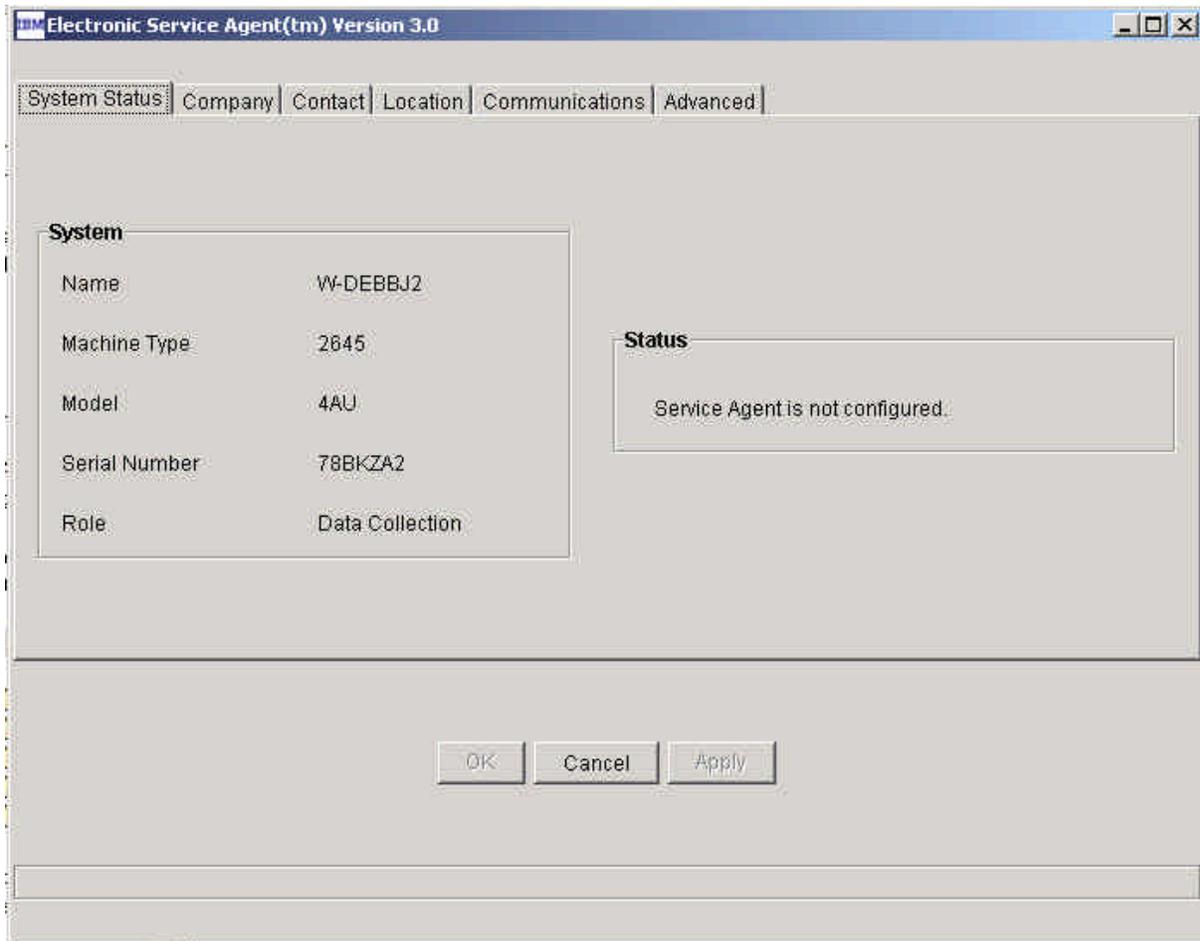
When you install Electronic Service Agent on a Data Collector, you see the System Status screen for Data Collection & Transmission.



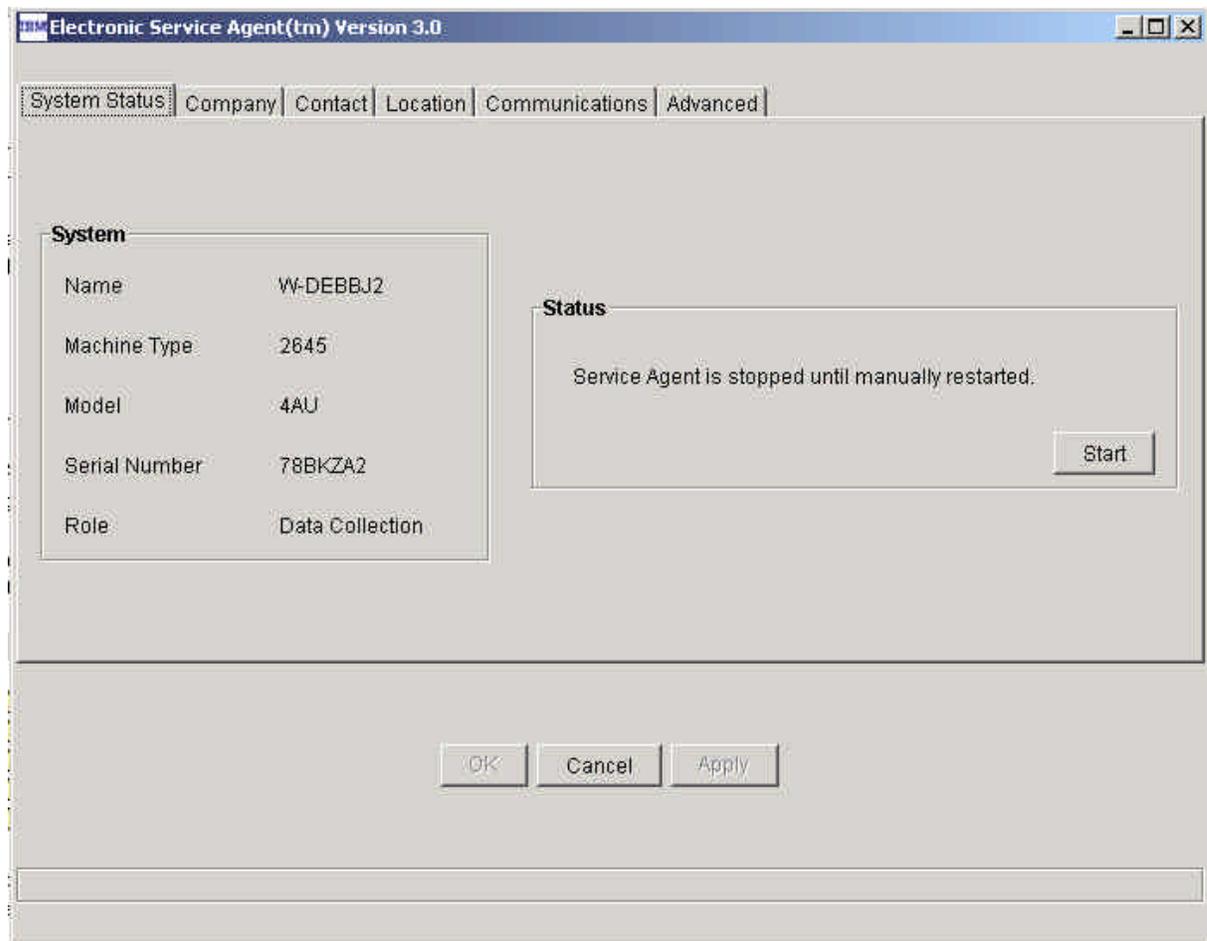
This screen reports on the current status of Electronic Service Agent and provides a method to start or stop the program. The Name, Machine Type, Model, and Serial are shown as they will be sent to IBM.

The Status field displays one of the following messages:

Service Agent is not configured. This is the initial status before you have completed configuration.

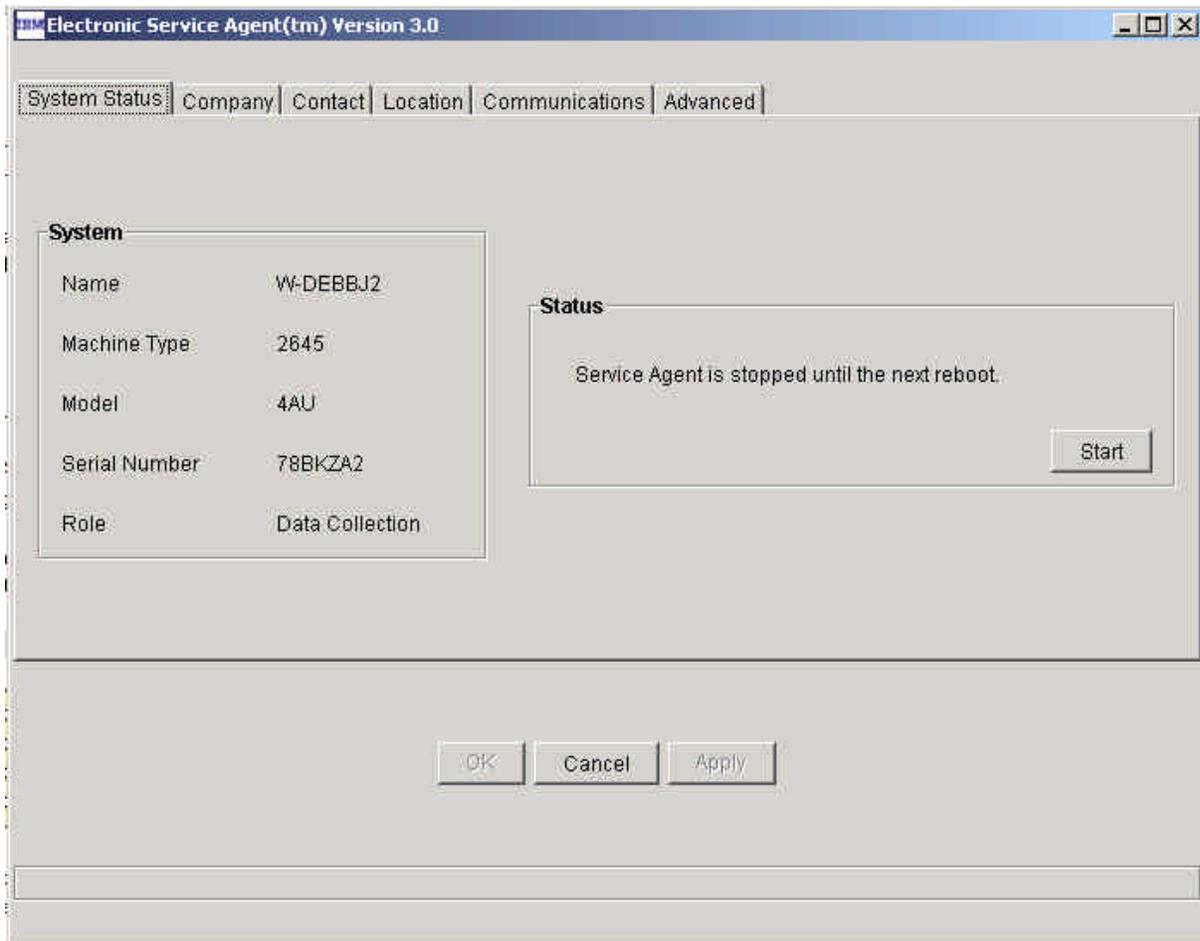


Service Agent is stopped until manually restarted.



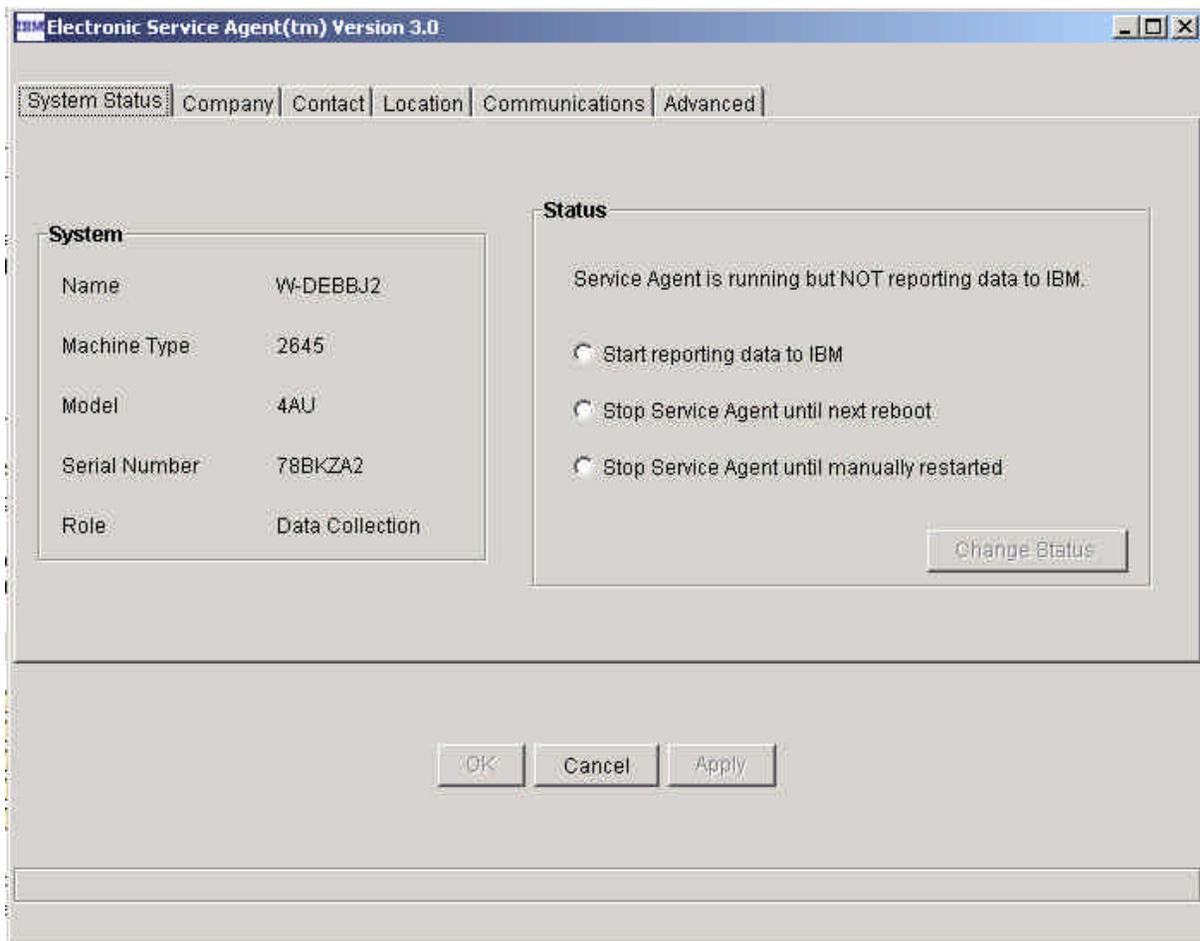
You can elect to start Electronic Service Agent by clicking the **Start** button, or you can wait until the next reboot.

Service Agent is stopped until the next reboot.



You can click **Start** or wait until the next reboot.

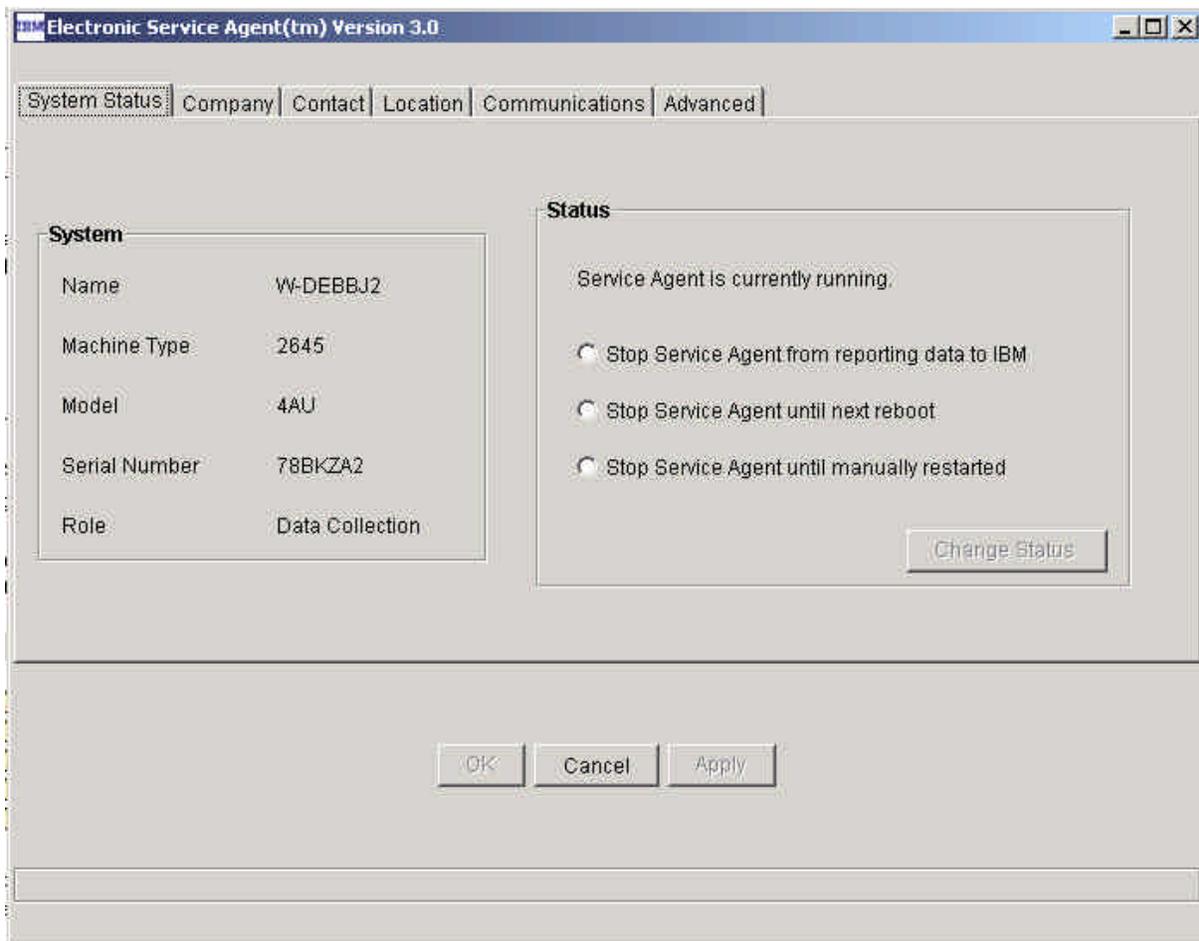
Service Agent is running but not reporting data to IBM.



You can select one of the following options:

- Start reporting data to IBM.
- Stop Electronic Service Agent until next reboot.
- Stop Electronic Service Agent until manually restarted.

Service Agent is currently running.



You can select one of the following options:

- Stop reporting data to IBM.
- Stop Electronic Service Agent until next reboot.
- Stop Electronic Service Agent until manually restarted.

If you make changes, click **Apply** to save them.

The following sections describe the pages you have the option of changing for the purpose of configuring the Data Collector. Please note that many of the screens are the same as those used for configuring the Gateway, but they are repeated here for the convenience of users who may only wish to configure the Data Collector.

## Company

This screen requests information about your company.

The screenshot shows the 'Company' configuration window of the IBM Electronic Service Agent (tm) Version 3.0. The window has a title bar with the product name and version. Below the title bar is a tabbed interface with tabs for 'System Status', 'Company', 'Contact', 'Location', 'Communications', and 'Advanced'. The 'Company' tab is active. The form contains several input fields: 'Company\*' with the value 'IBM Corporation', 'Country or Region\*' with a pull-down menu showing 'UNITED STATES', 'Telephone\*' with the value '5035784826', 'Extension' with the value '123', 'email' with the value 'info@ibm.com', and 'Enterprise or ECI ID' with the value '123'. A text box below the 'email' field contains the instruction: 'If your company has an IBM 'Enterprise Number' or 'ECI ID' it helps IBM ensure that you receive any special services that your company has arranged with IBM. Please see the User's Guide for more information.' At the bottom of the window are three buttons: 'OK', 'Cancel', and 'Apply'.

Fill in data as follows and click **Apply**:

Company: free-form text field

Country or Region: select from pull-down menu

Telephone: telephone number (10 digits in the U.S., beginning with area code), no parentheses, hyphens, or spaces

Extension: free-form field

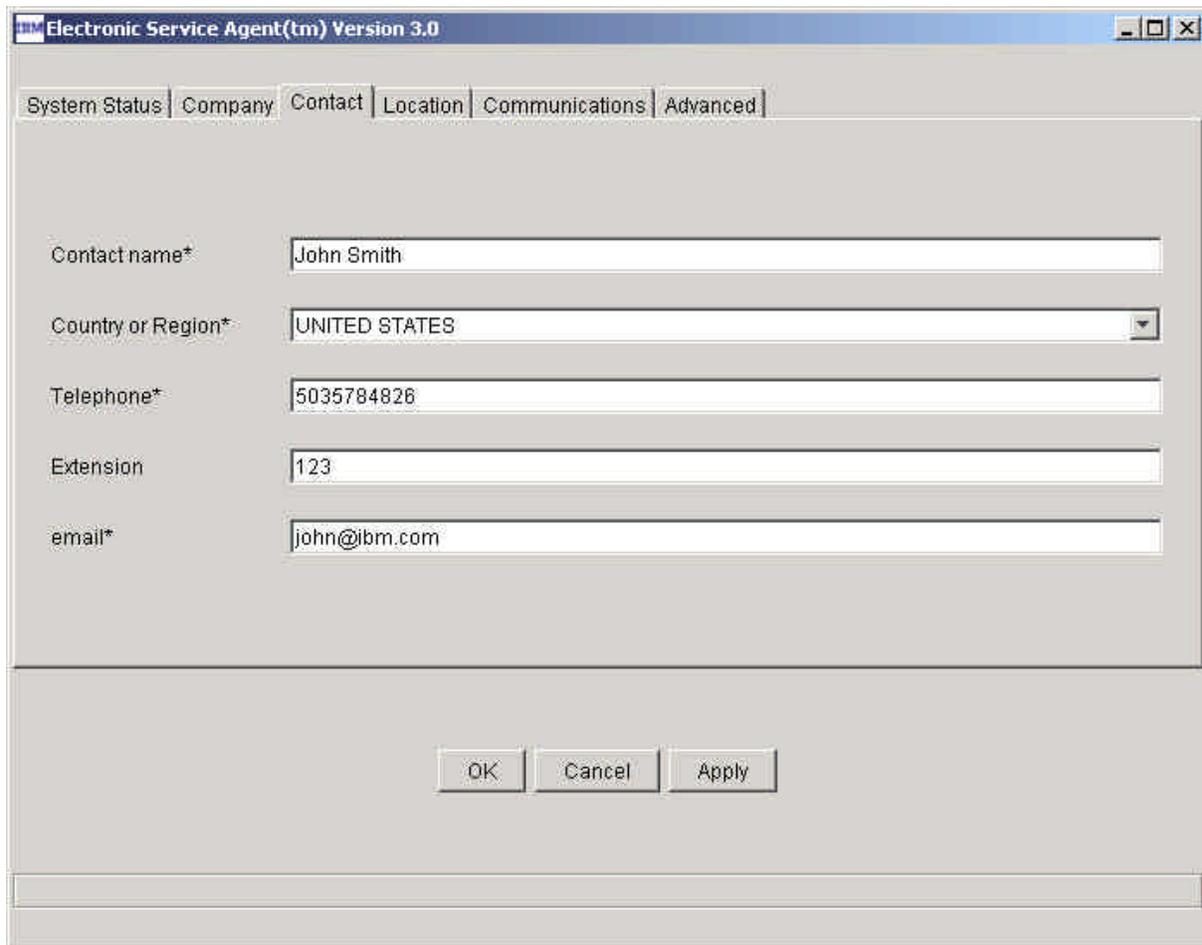
email: your company's Internet address, such as abc@abc.com

Enterprise or ECI ID: enter one of these:

- Your IBM-assigned Enterprise number. An Enterprise is a grouping of customer numbers.
- Your Electronic Customer Interface (ECI) ID. These numbers are used to identify customers and their associated service agreement terms. Your purchasing team may be able to provide an ECI ID.

## Contact

This is information about the person who supports this machine. This is the person IBM would be contacting in the event of a problem on this machine.



The screenshot shows the 'Contact' tab of the 'Electronic Service Agent (tm) Version 3.0' configuration window. The window has a title bar with the IBM logo and the text 'Electronic Service Agent (tm) Version 3.0'. Below the title bar is a tabbed interface with tabs for 'System Status', 'Company', 'Contact', 'Location', 'Communications', and 'Advanced'. The 'Contact' tab is selected. The form contains the following fields:

Contact name*	John Smith
Country or Region*	UNITED STATES
Telephone*	5035784828
Extension	123
email*	John@ibm.com

At the bottom of the form are three buttons: 'OK', 'Cancel', and 'Apply'.

Fill in data as follows, and click **Apply**:

Contact name: free-form text field

Country or Region: select from pull-down menu

Telephone: telephone number (10 digits in the U.S., beginning with area code), no parentheses, hyphens, or spaces

Extension: free-form field

email: your Internet address, such as janedoe@abc.com

## Location

This screen requests information about the location of the machine. This is NOT the mailing address: it is the physical location used by IBM to dispatch a field service representative.

IBM Electronic Service Agent(tm) Version 3.0

System Status | Company | Contact | **Location** | Communications | Advanced

Type in details of the location of your managed systems. This information is used by the IBM service representative to find the system if a Service Request is sent to IBM.

Building, Floor, Office\* Rhein Second floor

Country or Region\* UNITED STATES

Address\* 15300 SW Koll Parkway

City\* Beaverton

State / Province\* Oregon

Post / Zip Code\* 97006

OK Cancel Apply

Fill in data as follows and click **Apply**:

- Building, Floor, Office: free-form text field
- Country or Region: select from pull-down menu
- Address: street address, free-form text
- City: free-form text
- State/Province: select from pull-down menu
- Post /Zip Code: free-form text

## Communications

You cannot use the Auto Discovery feature if:

- You have installed a Data Collector on a separate subnet from the location of your Gateway
- You have other software that uses port 19955

In both cases, you will want to override the default setting for how this machine will communicate to the Gateway (Data Transmission System). The Communications tab lets you do this by filling in the 'Port Number' and 'IP address or host name' fields.

The screenshot shows the 'Electronic Service Agent(tm) Version 3.0' configuration window with the 'Communications' tab selected. The window has a title bar with standard minimize, maximize, and close buttons. Below the title bar are several tabs: 'System Status', 'Company', 'Contact', 'Location', 'Communications', and 'Advanced'. The 'Communications' tab is active and contains two sections:

- Connection to Gateway System:** This section has two input fields. The first is labeled 'Port Number\*' and contains the value '19955'. The second is labeled 'IP address or host name\*' and contains the value 'esaGateway.ibm.com'.
- Connection to this system:** This section has one input field labeled 'Port Number\*' containing the value '19955'.

At the bottom of the dialog box are three buttons: 'OK', 'Cancel', and 'Apply'.

Port number:

- Identifies which port the Data Collector will use to attempt to connect to the Gateway.
- Must be changed if another application in the network uses the default port.
- Note: All Electronic Service Agent systems in the network must have the same port configured.

The IP address or host name is the address or host name of the Gateway.

- This is normally blank and should be completed only if you do not want to use broadcast to contact the Gateway system, or the Gateway is unreachable by broadcast. This would be the case where the Data Collector and the Gateway are on separate subnets.

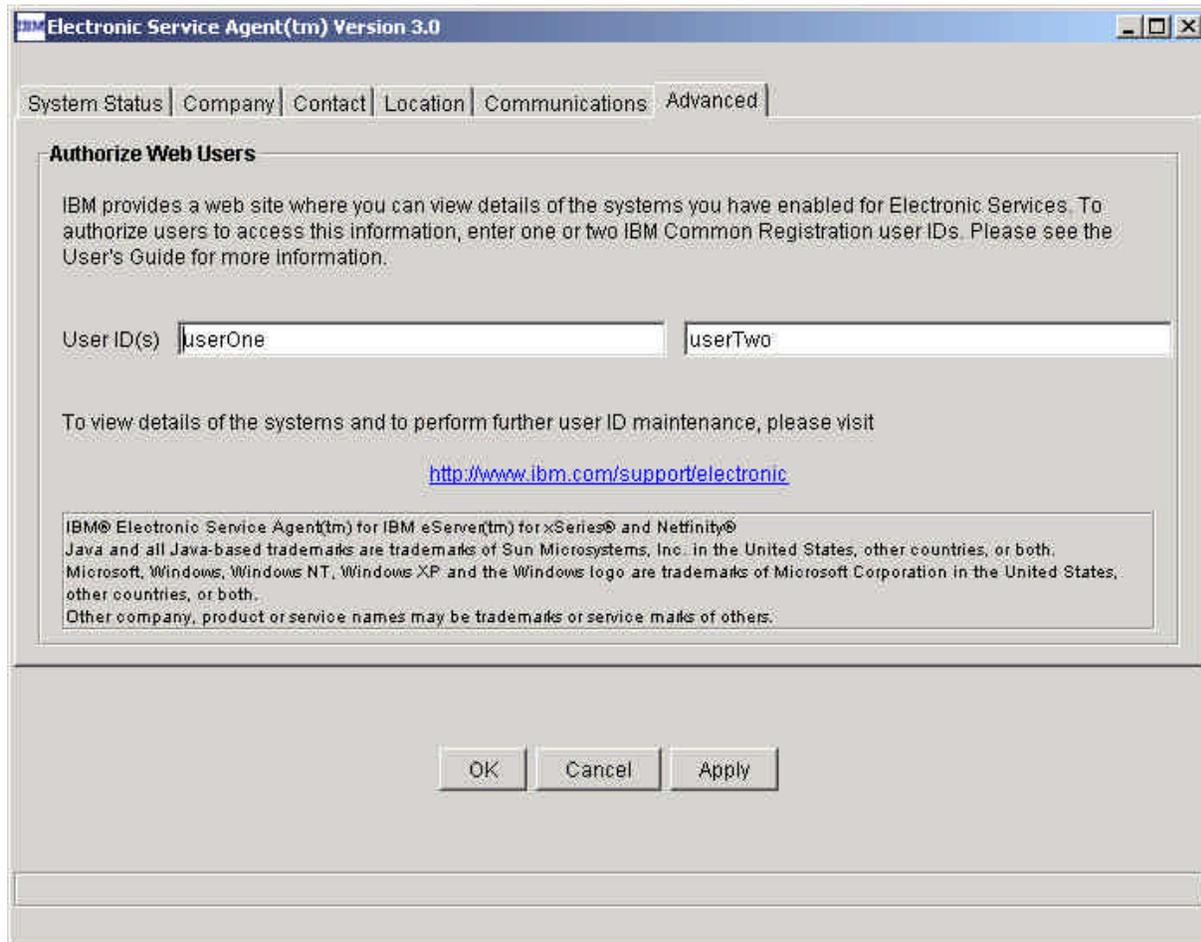
- The host name should be entered as a fully qualified name or the IP address of the Gateway.

The system port is the port number this machine will use to receive messages. Again, if you have software using port 19955, you will want to change this to an unused port. All port numbers are a decimal number up to 65535.

## Advanced

IBM provides a web site where you can view the data for the systems you have enabled. This web site contains all the error data for the machines serviced by Electronic Service Agent.

The **Advanced** panel allows you to authorize up to two users to view this data.



For example, you might want to authorize a customer's contact and the contact's manager. These rules apply:

The users you authorize must have an IBM Common Registration ID. To obtain this registration, have the users sign on to IBM Registration at <https://www.ibm.com/registration/selfreg>.

You may add more than two users by visiting <http://www.ibm.com/support/electronic>. This web site provides more details about the Advanced function.

## Configuration End

When all of the panels are complete, click **OK**.



---

## Chapter 6. Support

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### Entitlement to Automatic Problem Submission

You are entitled to automatic problem submission from IBM only if your systems are under warranty and/or your organization has a maintenance agreement with IBM Service. This service program is not intended for customers who have a third party maintaining the xSeries and Netfinity servers. IBM's standard warranty response time is the next business day unless you have purchased an upgrade to the service level agreement.

### Contacting Support

If you encounter problems or have technical questions regarding Electronic Service Agent, you should call your nearest IBM support center. You can obtain support center contact details that are appropriate for your country/region from the following web site:

<http://publib.boulder.ibm.com/pubs/html/as400/v4r4/ic2924/info/rzajitbl.htm>

If you are a resident in the United States, contact support at 1-800-IBM-SERV (1-800-426-7378). hardware support. You should have your machine type and serial number ready to give to the IBM support staff. Your machine type is identified by a four-digit number.

### Web Sites

#### IBM PC Support and Information

<http://www-3.ibm.com/pc/support/site.wss/>

#### IBM Support Center contact information

<http://publib.boulder.ibm.com/pubs/html/as400/v4r4/ic2924/info/rzajitbl.htm>

#### Electronic Service Agent installation package

<http://www.pc.ibm.com/qtechinfo/MIGR-40870.html>

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## Appendix A. Notices and Trademarks

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## Appendix B. Remote Installation

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IBM Electronic Service Agent gives you the ability to remotely install one or more Data Collectors, using an installation options file named "datacollector.rsp." This file contains the default options for Data Collectors that are installed on the same subnet as the Gateway. To use this file for Data Collectors on different subnets, refer to "Configuring Data Collector Manually" in Chapter 4.

The contents of the file are included here.

```
#####
##
#
# InstallShield Options File
#
# Wizard name: Setup
# Wizard source: setup.jar
# Created on: Thu May 22 12:41:37 PDT 2003
# Created by: InstallShield Options File Generator
#
# This file contains values that are necessary to remotely install Electronic
# Service Agent. It can be used to configure Setup with the options specified
# below when the wizard is run with the "-options" command line option. Read
# each setting's documentation for information on how to change its value.
#
# A common use of an options file is to run the wizard in silent mode. This lets
# the options file author specify wizard settings without having to run the
# wizard in graphical or console mode. To use this options file for silent mode
# execution, use the following command line arguments when running the wizard:
#
# 5639-n89-30.exe -options "datacollector.rsp" -silent
#
# NOTE: The system must be rebooted after the remote install. The reboot
# is not part of the default action.
#####
##

#####
##
# User Input Field - SystemType
#
-W dadtChoice.SystemType="collection"
```

```
#####
##
# User Input Field - language
#
-W licenseLanguage.language="EN"

#####
##
#
# License Agreement State
#
# The initial state of the License Agreement panel. Legal values are:
#
# 0 - Nothing will be selected
# 1 - "I &accept the terms of the license agreement." will be selected
# 2 - "I &do not accept the terms of the license agreement." will be
#   selected
#
# For example, to configure the panel to initially display "I &accept the terms
# of the license agreement.", use
# -W lpEnglish.selection=1
#
#One of the values below must be '1' and all the others '2'.
#
-W lpChineseTaiwan.selection=2
-W lpChinesePrc.selection=2
-W lpEnglish.selection=1
-W lpFrench.selection=2
-W lpGerman.selection=2
-W lpItalian.selection=2
-W lpJapanese.selection=2
-W lpKorean.selection=2
-W lpSpanish.selection=2

#####
##
#
# IBM Electronic Service Agent Install Location
#
# The install location of the product. Specify a valid directory into which the
# product should be installed.
# If the directory contains spaces, enclose it in double-quotes. For example, to
# install the product to C:Program FilesMy Product, use
#
# -P installLocation="C:Program Files\My Product"
```

```

#
-P installLocation="C:\Program Files\IBM\ServiceAgent"

#####
##
#
# Update Network and gatewayName choices -- Use one set of values OR the other,
# but not both.
#
# The manual selection must be used if the data collection system is not on the
# same subnet as the gateway system. If "manual" is used, then a valid
# gatewayName must be selected.
#
# -W askUpdateNetwork.choice="manual"
# -W enterDaNetworkInfo.gatewayName="abgate.someplace.com"
# This is the selection to be used if the data collection system is on the same
# subnet as the gateway.
-W askUpdateNetwork.choice="auto"
-W enterDaNetworkInfo.gatewayName=""

#####
##
# User Input Field - daPort
#
#
-W enterDaNetworkInfo.daPort="19955"

#####
##
# User Input Field - dtPort
#
-W enterDaNetworkInfo.dtPort="19955"

```

---

## Appendix C. Glossary

---

**AGN**

AT&T Global Network.

**Configuration**

Adaptation of files to a specific customer site for execution.

**Configuration file**

A file that contains information supplied by the customer, for example, customer contact information. It is created or changed during the install and configuration process; may also be changed during an Electronic Service Agent upgrade or via commands from other subsystems or from the SDR.

**Configurator**

The program that performs the process of configuring to the requirements of the customer site.

**Data Collector**

The subsystem responsible for collecting system and information and sending it to the appropriate destination as messages.

**ECI**

Electronic Customer Interface.

**Encryption**

A method of encoding messages to provide message security. Local encryption encodes messages moving among distributed subsystems in a networked environment. External encryption encodes messages before transfer between the Gateway and IBM .

**Entitlement**

Relates to the level of support provided to a customer. The level of support is determined by the contractual arrangement between IBM Global Services and the customer.

**Error information**

Information describing the conditions on the managed system that are beyond the specified tolerances of normal system behavior.

**Event**

An event is a means of identifying a change of state of a process or device on the network. For example, an event identifies when a critical resource threshold such as virtual memory utilization is met.

**FRU**

Field Replaceable Unit.

**Gateway**

The subsystem that establishes secure communication with IBM and transfers messages between the Data Collector and IBM.

**IBM Director**

A systems management product providing support for IBM xSeries servers.

**ICR**

IBM Common Registration.

**Installation**

The placement of binary, non-customized control files, and support files in a directory hierarchy on the customer system. Establishment of specific user accounts, groups, etc., and of default permissions and authentication requirements.

**Inventory information**

Information describing the basic configuration of a managed system. Included are a list of the physical characteristics of the managed system (number of processors, amount of memory and disk, etc.), and a list of installed software.

**LAN**

Local Area Network.

**Log File**

Files that record information about normal and abnormal operation. A file that contains entries delimited by a time stamp.

**Managed systems**

An operating system instance or hardware platform monitored by Electronic Service Agent.

**Problem report**

A technology-neutral term describing a problem that requires the attention of IBM service personnel. This term can be used in place of the RETAIN-specific term, *problem management report* (PMR).

**Registration**

Registration associates authorized local users with a managed system, allowing them access to data about that system on the Electronic Service Agent web site. Registration is initiated by Electronic Service Agent .

**Schedule driven**

Collectors and detectors that gather information about managed systems at specified times.

**Service Data Receiver (SDR)**

The facility on the IBM server that receives messages from Electronic Service Agent

**SSL**

Secure Socket Layer.

**WAN**

Wide Area Network.

---

## Appendix D. Forms

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### Company Form

<b>Company Name:</b>			
<b>Country:</b>			
<b>Company Phone:</b>		<b>Extension:</b>	
<b>Company email:</b>			
<b>IBM Enterprise Number:</b>			

### Contact Form

<b>Contact Name:</b>			
<b>Contact Phone:</b>		<b>Extension:</b>	
<b>Contact email:</b>			

### Location Form

<b>Bld/Flr/Ofc:</b>			
<b>Street Address:</b>			
<b>City/Locality:</b>		<b>State/Province:</b>	
<b>Post Code:</b>			

